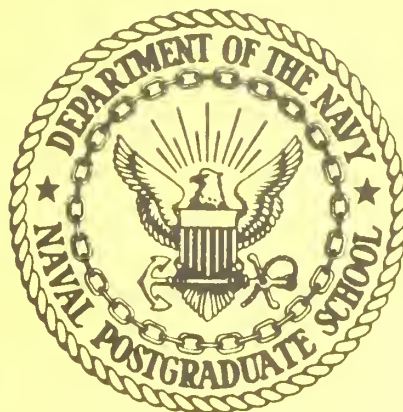


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A TABLE OF
LANCHESTER-CLIFFORD-SCHLÄFLI FUNCTIONS

by

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and

Gerald G. Brown

October 1977

NAVAL POSTGRADUATE SCHOOL
Monterey, California

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20. Cont.

to illustrate the use of the LCS functions for analyzing "aimed-fire" combat modelled by the power attrition-rate coefficients with "no offset." Our results and these tabulations allow one to study this particular variable-coefficient combat model almost as easily and thoroughly as Lanchester's classic constant-coefficient model.

A TABLE OF LANCHESTER-CLIFFORD-SCHLÄFLI FUNCTIONS

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1. Introduction

Lanchester-type* differential-equation combat models are an important tool for analyzing many important problems of military operations research. In such a combat model, a so-called attrition-rate coefficient represents the fire effectiveness of a particular weapon-system type against a particular target type, i.e. the weapon-system type's effective firepower against such a target. Time-dependent attrition-rate coefficients are used to model temporal variations in firepower on the battlefield. Thus, we see that time-dependent attrition-rate coefficients are important (and, in fact, essential [4-6]) for the quantitative analysis of hypothetical combat.

Militarily realistic computer-based Lanchester-type models of quite complex military systems have been developed for almost the entire spectrum of combat operations, from combat between battalion-sized units to theater-level operations. Nevertheless, a simple combat model may yield a clearer understanding of significant interrelationships that are difficult to perceive in a more complex model, and such insights can subsequently provide valuable guidance for more detailed computerized investigations. In this report we consider such a simplified variable-coefficient Lanchester-type model of combat between two homogeneous forces.

For this variable-coefficient Lanchester-type model of combat between two homogeneous forces, different functional forms for the attrition-rate coefficients lead to different mathematical functions being involved in representing and computing the force-level trajectories. In a previous paper [5] we have discussed the plausibility of the hypothesis that except for the special case of a constant ratio of attrition-rate coefficients,

* So-called after pioneering work of F. W. Lanchester [3].

the solutions to such differential equations cannot be represented in terms of "elementary" functions of analysis. Thus, new transcendental functions arise in the study of combat modelled with time-dependent attrition-rate coefficients. In particular, we have previously introduced [5-6] so-called Lanchester-Clifford-Schläfli (LCS) functions for analyzing combat modelled with power attrition-rate coefficients with "no offset" (see Section 3 below).

In the Appendix to this report is contained the most extensive set of tables currently available for the LCS functions: it contains tables of five-decimal-place values of the hyperbolic-like LCS functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and $T_{\alpha}(x)$ (see Section 4 below) for 25 fractional values of α (see Section 6 below). The main body of this report provides the theoretical and modelling background for the use of these tables. In particular, we examine a model of a constant-speed attack on a static defensive position and show how associated range-dependent kill rates give rise to time-dependent attrition-rate coefficients with "no offset." Numerical computations are presented to illustrate the use of the LCS functions for analyzing such "aimed-fire" combat. As a consequence of the availability of these tables, one can now study this variable-coefficient combat model almost as easily and thoroughly as Lanchester's classic constant-coefficient model.

2. Variable-Coefficient Lanchester-Type Equations of Modern Warfare.

We consider combat between two homogeneous forces modelled by the following variable-coefficient Lanchester-type [3] (see [4,5]) equations of modern warfare

$$\left\{ \begin{array}{ll} \frac{dx}{dt} = -a(t)y & \text{with } x(0) = x_0 , \\ \frac{dy}{dt} = -b(t)x & \text{with } y(0) = y_0 , \end{array} \right. \quad (2.1)$$

where $t = 0$ denotes the time at which the battle begins, $x(t)$ and $y(t)$ denote the numbers of X and Y at time t , and $a(t)$ and $b(t)$ denote time-dependent Lanchester attrition-rate coefficients, which represent the effectiveness of each side's fire. These coefficients depend on variables such as force separation, tactical posture of targets, rate of target acquisition, firing rate, etc. (see [4-7] for further details). Variable attrition-rate coefficients are used to model temporal variations in firepower on the battlefield. In any analysis of combat, moreover, we should use the above equations (2.1) only for x and $y > 0$ and, for example, set $dx/dt = 0$ when $x = 0$, since negative force levels have no physical meaning.

Mathematically, we assume that the attrition-rate coefficients $a(t)$ and $b(t)$ are defined, positive, and continuous for $t_0 < t < +\infty$ with $t_0 \leq 0$. We also assume that $a(t)$ and $b(t) \in L(t_0, T)$ for any finite $T \geq t_0$. We further take $a(t)$ and $b(t)$ to be given in the form

$$a(t) = k_a g(t) , \quad \text{and} \quad b(t) = k_b h(t) , \quad (2.2)$$

where k_a and k_b are positive constants chosen so that $a(t)/b(t) = k_a/k_b$ when $g(t) \equiv h(t)$. We introduce the combat-intensity parameter λ_I and the relative-fire-effectiveness parameter λ_R defined by

$$\lambda_I = \sqrt{k_a k_b} , \quad \text{and} \quad \lambda_R = k_a / k_b . \quad (2.3)$$

From our assumptions about $a(t)$ and $b(t)$, it follows that, for example, $a(t) \notin L(t_0, T)$ implies $\int_{t_0}^T a(t) dt = +\infty$.

The X force level as a function of time may be represented as [5,6]

$$x(t) = x_0 \{C_Y(0)C_X(t) - S_Y(0)S_X(t)\} - y_0 \sqrt{\lambda_R} \{C_X(0)S_X(t) - S_X(0)C_X(t)\}, \quad (2.4)$$

where the hyperbolic-like general Lanchester functions (GLF) $C_X(t)$ and $S_X(t)$ are linearly-independent solutions to the X force-level equation

$$\frac{d^2 x}{dt^2} - \left\{ \frac{1}{a(t)} \frac{da}{dt} \right\} \frac{dx}{dt} - a(t)b(t)x = 0 , \quad (2.5)$$

with initial conditions

$$C_X(t_0) = 1 , \quad S_X(t_0) = 0 , \quad (2.6)$$

$$\{1/a(t_0)\} dC_X/dt(t_0) = 0 , \quad \{1/a(t_0)\} dS_X/dt(t_0) = 1/\sqrt{\lambda_R} .$$

Here t_0 denotes the largest finite time at which $a(t)$ or $b(t)$ ceases to be defined, positive, or continuous. The Y force level as a function of time is given by a similar expression, with $C_Y(t)$ and $S_Y(t)$ being analogously defined for the corresponding Y force-level equation.

It is sometimes convenient to introduce the new independent variable τ defined by

$$\tau = \int_{t_0}^t \sqrt{a(s)b(s)} \, ds . \quad (2.7)$$

It is readily seen that the transformation $\tau = \tau(t)$ is well defined and invertible. Let us denote $\tau(0)$ as τ_0 . We observe that $t_0 \leq 0$ implies that $\tau_0 \geq 0$. If we denote the "average intensity of combat" as $\overline{\sqrt{a(t)b(t)}}$, then

$$\overline{\sqrt{a(t)b(t)}} \, t = \left\{ (1/t) \int_0^t \sqrt{a(s)b(s)} \, ds \right\} t = \tau - \tau_0 . \quad (2.8)$$

The substitution (2.7) transforms (2.5) into

$$\frac{d^2 x}{d\tau^2} - \left(\frac{1}{2} \right) \left\{ \frac{d}{d\tau} \ln R(\tau) \right\} \frac{dx}{d\tau} - x = 0 , \quad (2.9)$$

with initial conditions

$$x(\tau_0) = x_0 , \quad \text{and} \quad \{1/\sqrt{R(\tau_0)}\} \, dx/d\tau(\tau_0) = -y_0 ,$$

where $R(\tau) = a(t)/b(t)$.

3. Combat Modelled with Power Attrition-Rate Coefficients.

The above equations (2.1) basically apply to "aimed-fire" combat when target-acquisition times do not depend on the numbers of targets available (see [5,6] for further details). A large class of tactical situations of interest can be modelled with the following general power attrition-rate coefficients [5-7]

$$a(t) = k_a (t + C)^\mu, \quad \text{and} \quad b(t) = k_b (t + C + A)^\nu, \quad (3.1)$$

where A and $C \geq 0$. We will call A the offset parameter, since it allows us to model (with μ and $\nu \geq 0$) battles between opposing weapon systems with different maximum effective ranges (see [5,6]). We will call C the starting parameter, since it allows us to model (again, with μ and $\nu \geq 0$) battles that begin within the maximum effective ranges of the two opposing systems. We observe that for the general power attrition-rate coefficients (3.1) we have $t_0 = -C$, and μ and ν must be > -1 in order that $a(t)$ and $b(t) \in L(t_0, T)$.

The above nomenclature is motivated and possible applications of our work are indicated by considering S. Bonder's model of the constant-speed attack on a static defensive position (see [4-7] for further details)

$$\frac{dx}{dt} = -\alpha(r)y, \quad \text{and} \quad \frac{dy}{dt} = -\beta(r)x, \quad (3.2)$$

where r denotes the range between opposing forces, and $\alpha(r)$ and $\beta(r)$ denote range-dependent attrition-rate coefficients. Range is related to time by

$$r(t) = R_0 - vt, \quad (3.3)$$

where R_0 denotes the opening range of battle and $v > 0$ denotes the constant attack speed. For example, let us consider the constant-speed attack of a homogeneous Y force against the static defensive position of a homogeneous X force. Figure 1 diagrammatically portrays this situation.

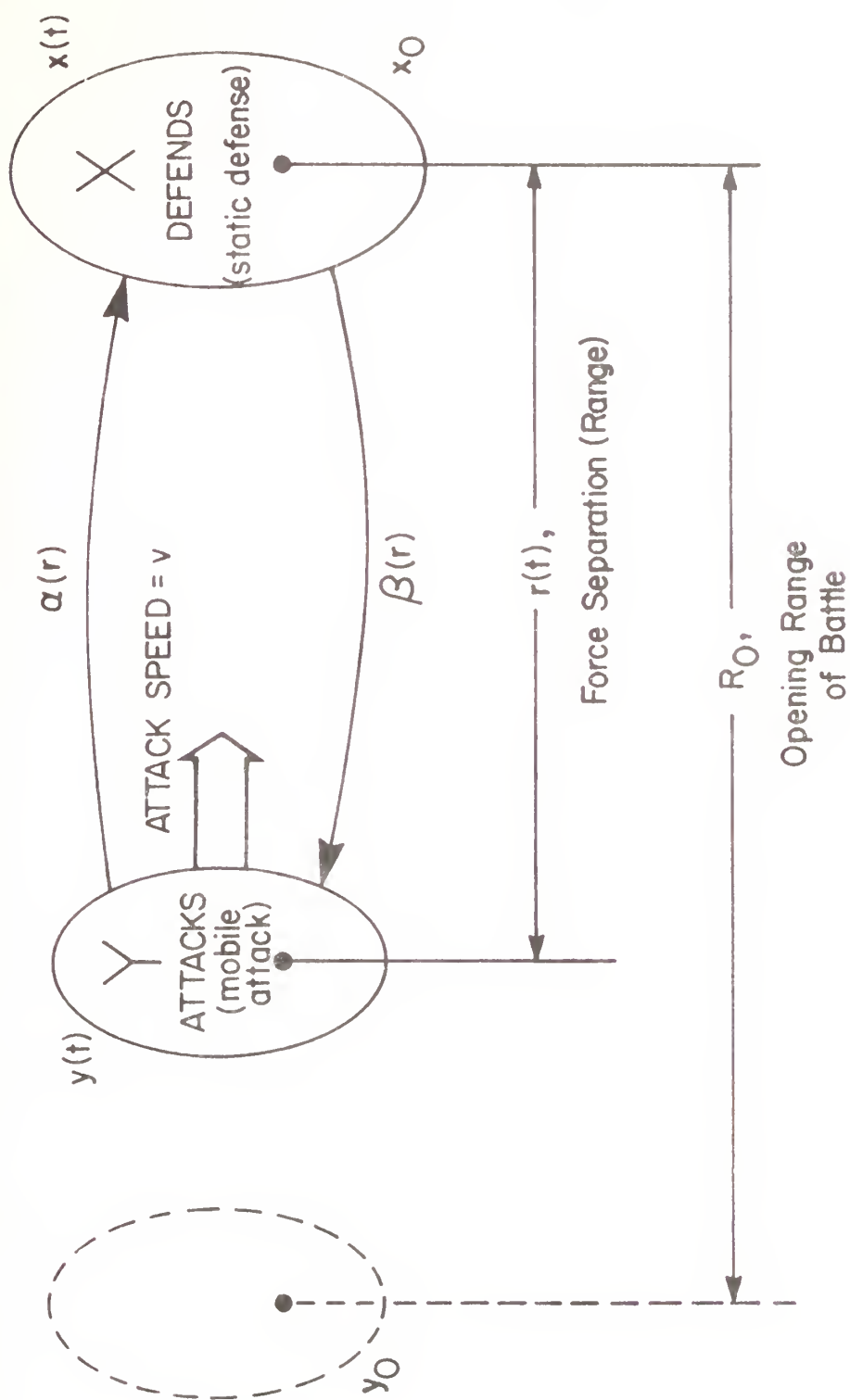


Figure 1. Diagram of Bonder's constant-speed attack model.
Force separation, $r(t)$, is given by $r(t) = R_0 - vt$.

The basic idea is that force separation, i.e. range between the opposing forces, changes over time, and the fire effectiveness of, for example, a single Y firer, denoted as $\alpha(r)$, depends on this force separation.

In many cases of tactical interest, we may model the fire effectiveness of, for example, the Y weapon system (as a function of range) with

$$\alpha(r) = \begin{cases} \alpha_0 \left(1 - \frac{r}{R_\alpha}\right)^\mu & \text{for } 0 \leq r \leq R_\alpha, \\ 0 & \text{for } R_\alpha \leq r, \end{cases} \quad (3.4)$$

where R_α denotes the maximum effective range of the Y weapon system and $\mu \geq 0$. Here μ is used to model the range dependency of Y's attrition-rate coefficient (see Figure 2). We model $\beta(r)$ similarly, with corresponding quantities R_β and ν being analogous to R_α and μ above.

If we use (3.3) to eliminate range r from (3.4), we obtain

$$\begin{cases} \frac{dx}{dt} = -a(t)y, \\ \frac{dy}{dt} = -b(t)x, \end{cases} \quad (3.5)$$

where the time-dependent attrition-rate coefficients $a(t)$ and $b(t)$ are given by (3.1). It follows that the offset and starting parameters are given by

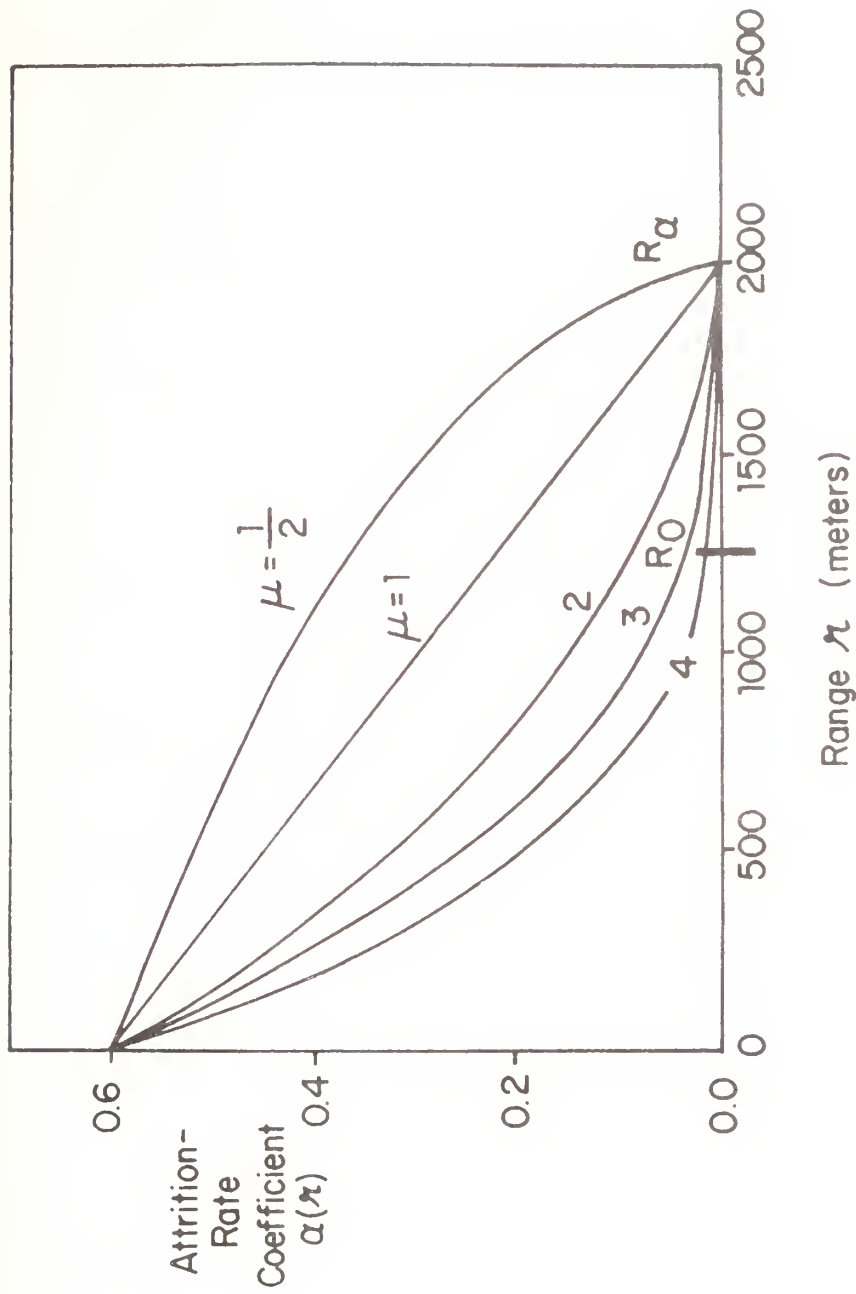


Figure 2. Dependence of Y's attrition-rate coefficient $\alpha(r)$ on the exponent μ with the maximum effective range of the weapon system and kill rate at zero range held constant. [NOTES: 1. The maximum effective range of the system is denoted as $R_\alpha = 2000$ meters. 2. $\alpha(0) = \alpha_0 = 0.6X$ casualties/(unit time \times number of Y firers) denotes the weapon-system kill rate for Y at zero force separation (range). 3. The opening range of battle is denoted as $R_0 = 1250$ meters and (as shown) $R_0 < R_\alpha$.]

$$A = \left(\frac{R_\beta - R_\alpha}{v} \right), \quad \text{and} \quad C = \left(\frac{R_\alpha - R_0}{v} \right), \quad (3.6)$$

and that

$$k_a = \alpha_0 \left(\frac{v}{R_\alpha} \right)^\mu, \quad \text{and} \quad k_b = \beta_0 \left(\frac{v}{R_\beta} \right)^\nu. \quad (3.7)$$

We observe that A and $C \geq 0$ if and only if $R_\beta \geq R_\alpha \geq R_0$. By considering (3.6) and Figure 3, the reader should have no trouble in understanding our terminology for A and C .

When the offset parameter is equal to zero (i.e. $A = 0$), then the coefficients (3.1) reduce to

$$a(t) = k_a (t+C)^\mu, \quad \text{and} \quad b(t) = k_b (t+C)^\nu. \quad (3.8)$$

We will refer to (3.8) as power attrition-rate coefficients with "no offset." As we have seen above in Bonder's constant-speed attack model, these coefficients model, for example, combat between weapon systems with the same maximum effective range so that there is no "offset" in the "reaching out" of the weapon systems against each other in combat (again, see Figure 3). For these coefficients (3.8), the transformed X force-level equation (2.9) becomes

$$\frac{d^2 x}{d\tau^2} + \left(\frac{2q-1}{\tau} \right) \frac{dx}{d\tau} - x = 0, \quad (3.9)$$

with initial conditions

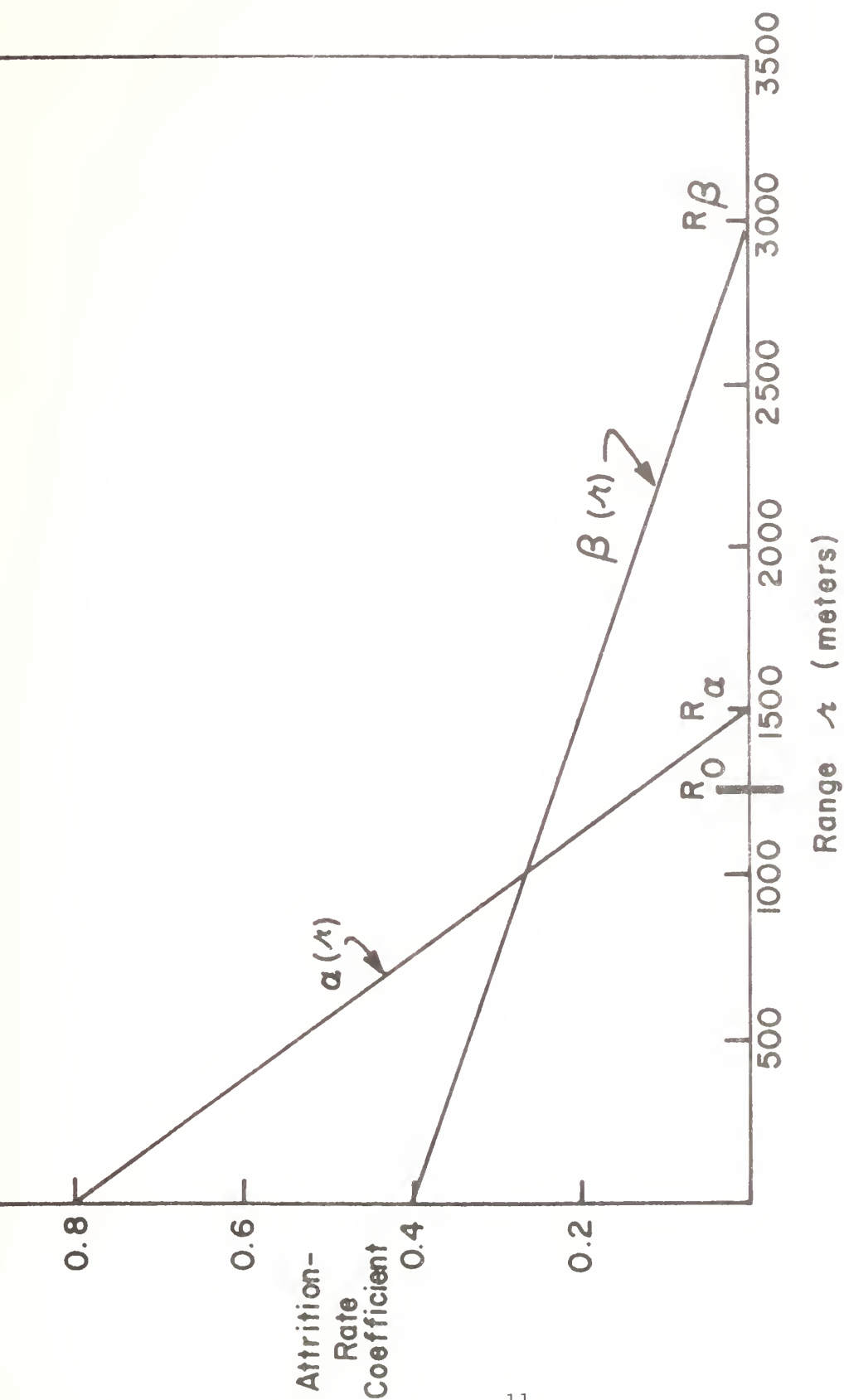


Figure 3. Explanation of the offset parameter A and the starting parameter C for power attrition-rate coefficients modelling constant-speed attack. [NOTES: 1. The maximum effective ranges of the X and Y weapon systems are denoted as R_α and R_β , respectively. 2. The opening range of battle is denoted as R_0 and (as shown) $R_0 < \min(R_\alpha, R_\beta)$. 3. The offset parameter is given by $A = (R_\beta - R_\alpha)/v$. 4. The starting parameter is given by $C = (R_\alpha - R_0)/v$.]

$$x(\tau_0) = x_0, \quad \text{and} \quad \left\{ \left(\frac{\tau}{2} \right)^{2q-1} \frac{dx}{d\tau} \right\}_{\tau=\tau_0} = -y_0 \sqrt{\lambda_R} \left(\frac{\lambda_I}{\mu + \nu + 2} \right)^{2q-1}.$$

Here

$$q = \left(\frac{\nu + 1}{\mu + \nu + 2} \right), \quad (3.10)$$

$$\tau = \left(\frac{2\lambda_I}{\mu + \nu + 2} \right) (t + C)^{(\mu + \nu + 2)/2}, \quad (3.11)$$

and

$$\tau_0 = \left(\frac{2\lambda_I}{\mu + \nu + 2} \right) C^{(\mu + \nu + 2)/2}. \quad (3.12)$$

Let us observe that $0 < q < 1$ when μ and $\nu > -1$. Furthermore, $q > 1/2$ if and only if $dR/dt < 0$, i.e. $R(t)$ is a strictly decreasing function of time.

4. Lanchester-Clifford-Schläfli (LCS) Functions.

Consider the function $F_\alpha(x)$ defined by the power series

$$F_\alpha(x) = \Gamma(\alpha) \sum_{k=0}^{\infty} \frac{(x/2)^{2k}}{\{k! \Gamma(k + \alpha)\}}. \quad (4.1)$$

For $\alpha \neq 0, -1, -2, \dots$ the radius of convergence for $F_\alpha(x)$ is infinite by the ratio test for convergence of power series [2]. Hence, $F_\alpha(z)$ is an entire function of the complex variable $z = x + iy$, with an essential

singularity at the point at infinity. Now consider the function $H_\alpha(x)$ defined by the infinite series

$$H_\alpha(x) = \Gamma(\alpha) \sum_{k=0}^{\infty} \frac{(x/2)^{2(k+\alpha)}}{\{k! \Gamma(k+\alpha+1)\}} . \quad (4.2)$$

Observing that

$$H_\alpha(x) = (1/\alpha)(x/2)^{2\alpha} F_{\alpha+1}(x) , \quad (4.3)$$

we see that for $\alpha > 0$ the infinite series (4.2) is uniformly convergent on compact subsets of the complex plane. From (4.3) one can readily deduce the recursive relation

$$F_\alpha(x) = F_{\alpha+1}(x) + \left\{ \frac{(x/2)^2}{\alpha(\alpha+1)} \right\} F_{\alpha+2}(x) . \quad (4.4)$$

We will call the functions $F_\alpha(x)$ and $H_\alpha(x)$ Lanchester-Clifford-Schläfli (LCS) functions (see Note 10 on pp. 66-67 of [5]). Other properties are readily deduced and are given in Table I.

The function $F_\alpha(x)$ satisfies the linear second-order ordinary differential equation

$$\frac{d^2 F_\alpha}{dx^2} + \left(\frac{2\alpha-1}{x} \right) \frac{dF_\alpha}{dx} - F_\alpha = 0 , \quad (4.5)$$

with initial conditions

Table I. Properties of the LCS Functions $F_{\alpha}(x)$ and $H_{\alpha}(x)$.

1. $dF_{\alpha}/dx = (x/2)^{1-2\alpha}H_{\alpha}(x)$
2. $dH_{\alpha}/dx = (x/2)^{2\alpha-1}F_{\alpha}(x)$
3. $F_{\alpha}(x)F_{1-\alpha}(x) - H_{\alpha}(x)H_{1-\alpha}(x) = 1 \quad \forall x$
where α is not an integer (including zero)
4. $F_{\alpha}(x=0) = 1$
5. $H_{\alpha}(x=0) = 0 \quad \text{for } \alpha > 0$
6. $dF_{\alpha}/dx(x=0) = 0$
7. $\{(x/2)^{1-2\alpha}dH_{\alpha}/dx\}_{x=0} = 1$
8. $F_{1/2}(x) = \cosh x$
9. $H_{1/2}(x) = \sinh x$

$$F_{\alpha}(0) = 1, \quad \text{and} \quad \frac{dF_{\alpha}}{dx}(0) = 0,$$

while $H_{\alpha}(x)$ satisfies

$$\frac{d^2 H_{\alpha}}{dx^2} - \left(\frac{2\alpha-1}{x}\right) \frac{dH_{\alpha}}{dx} - H_{\alpha} = 0, \quad (4.6)$$

with initial conditions

$$H_{\alpha}(0) = 0, \quad \text{and} \quad \left\{ \left(\frac{x}{2}\right)^{1-2\alpha} \frac{dH_{\alpha}}{dx} \right\}_{x=0} = 1.$$

Thus, $\{F_{\alpha}, H_{1-\alpha}\}$ is a fundamental system of solutions to

$$\frac{d^2 F}{dx^2} + \left(\frac{2\alpha-1}{x}\right) \frac{dF}{dx} - F = 0, \quad (4.7)$$

with Wronskian $W(F_{\alpha}, H_{1-\alpha}) = (x/2)^{1-2\alpha}$. It follows that the GLF for the X and Y force-level equations for combat modelled with the attrition-rate coefficients (3.8) are given by

$$C_X(t) = F_q(\tau(t)), \quad S_X(t) = \left(\frac{\lambda_I}{\mu + \nu + 2} \right)^{2q-1} H_p(\tau(t)), \quad (4.8)$$

$$C_Y(t) = F_p(\tau(t)), \quad S_Y(t) = \left(\frac{\lambda_I}{\mu + \nu + 2} \right)^{1-2q} H_q(\tau(t)), \quad (4.9)$$

where $p = 1-q$. If we define

$$T_{\alpha}(x) = H_{1-\alpha}(x)/F_{\alpha}(x) , \quad (4.10)$$

then

$$T_X(t) = \frac{S_X(t)}{C_X(t)} = \left(\frac{\lambda_I}{\mu + \nu + 2} \right)^{2q-1} \frac{H_p(\tau(t))}{F_q(\tau(t))} , \quad (4.11)$$

or

$$T_X(t) = \left(\frac{\lambda_I}{\mu + \nu + 2} \right)^{2q-1} T_q(\tau(t)) , \quad (4.12)$$

where $T_X(t)$ denotes a hyperbolic-like GLF, which corresponds to the hyperbolic tangent. Observing that for $\mu, \nu > -1$, $\lim_{t \rightarrow +\infty} \tau(t) = +\infty$, we see that $T_{\alpha}(x)$ is a strictly increasing function of x on the interval $[0, +\infty)$ and

$$0 \leq T_{\alpha}(x) < \frac{\Gamma(1-\alpha)}{\Gamma(\alpha)} \quad \text{for } 0 \leq x < +\infty , \quad (4.13)$$

with

$$\lim_{x \rightarrow +\infty} T_{\alpha}(x) = \frac{\Gamma(1-\alpha)}{\Gamma(\alpha)} , \quad (4.14)$$

since by the results of Taylor and Comstock [7] the parity-condition parameter $Q^* = Q^*(\mu, \nu, C = 0)$ is given by

$$\lim_{t \rightarrow +\infty} T_X(t) = \frac{1}{Q^*(\mu, \nu, 0)} = \left(\frac{\lambda_I}{\mu + \nu + 2} \right)^{2q-1} \frac{\Gamma(p)}{\Gamma(q)} . \quad (4.15)$$

We recall that Taylor and Comstock [7] have introduced the so-called parity-condition parameter Q^* as the value (or range of such values) for the initial condition Q to the initial-value problem

$$\left\{ \begin{array}{l} \frac{dE_X^-}{dt} = - \frac{1}{\sqrt{\lambda_R}} a(t) E_Y^- \quad \text{with } E_X^-(t_0) = 1, \\ \frac{dE_Y^-}{dt} = - \sqrt{\lambda_R} b(t) E_X^- \quad \text{with } E_Y^-(t_0) = Q, \end{array} \right. \quad (4.16)$$

such that $E_X^-(t; Q^*)$ and $E_Y^-(t; Q^*) > 0$ for all $t \geq t_0$. In other words, Q^* is the value of Q in (4.16) above such that neither E_X^- nor E_Y^- ever become zero. In this case, both $E_X^-(t; Q^*)$ and $E_Y^-(t; Q^*)$ are positive, strictly decreasing functions, similar to decreasing exponentials. Thus, we may call Q^* "the Y equivalent of an X force of unit strength," since the forces are "at parity," with neither force being annihilated in finite time. Taylor and Comstock have shown that for either $a(t) \notin L(0, +\infty)$ or $b(t) \notin L(0, +\infty)$, then Q^* is unique and given by

$$\lim_{t \rightarrow +\infty} \frac{S_X(t)}{C_X(t)} = \frac{1}{Q^*}. \quad (4.17)$$

The significance of the parity-condition parameter Q^* is that it allows us to predict force annihilation as the following theorem shows.

THEOREM 1 (Taylor and Comstock [7]): Assume that either $a(t) \notin L(0, +\infty)$ or $b(t) \notin L(0, +\infty)$. Then the X force will be annihilated in finite time if and only if

$$\frac{x_0}{y_0} < \sqrt{\lambda_R} \left\{ \frac{C_X(0) - Q^* S_X(0)}{Q^* C_Y(0) - S_Y(0)} \right\}. \quad (4.18)$$

5. Use of LCS Functions for Analyzing Combat.

The Lanchester-Clifford-Schläfli (LCS) functions $F_{\alpha}(x)$ and $H_{\alpha}(x)$ are useful for analyzing "aimed-fire" combat (see Section 3 above) modelled with the power attrition-rate coefficients with "no offset" (3.8), which we rewrite here as

$$a(t) = k_a (t + C)^{\mu}, \quad \text{and} \quad b(t) = k_b (t + C)^{\nu}. \quad (5.1)$$

In other words, the LCS functions arise in solving the differential combat model (2.1) with attrition-rate coefficients (5.1). In order that both $a(t)$ and $b(t) \in L(t_0, T)$, we must have μ and $\nu > -1$. Military situations modelled by these equations have been discussed in Section 3 above, e.g. combat between two weapon systems with the same maximum effective range. For such combat, the LCS functions may be used to

(1) compute force-level declines,

(2) predict force annihilation,

and (3) predict the time of force annihilation.

Let us now see how the LCS functions may be used to obtain the above information about force-level declines and force-annihilation prediction. According to (2.4), (4.8), and (4.9) above, the X force level is given by

$$\begin{aligned} x(t) = & x_0 \{ F_p(\tau_0) F_q(\tau(t)) - H_q(\tau_0) H_p(\tau(t)) \} \\ & - y_0 \sqrt{\lambda_R} \left(\frac{\lambda_I}{\mu + \nu + 2} \right)^{2q-1} \{ F_q(\tau_0) H_p(\tau(t)) - H_p(\tau_0) F_q(\tau(t)) \}, \quad (5.2) \end{aligned}$$

where q is given by (3.10), $p = 1-q$, and $\tau(t)$ is given by (3.11), which we rewrite as

$$\tau(t) = \left(\frac{2\lambda_I}{\mu + \nu + 2} \right) (t + C)^{(\mu+\nu+2)/2} . \quad (5.3)$$

The time to annihilate the X force* is determined by $x(t_a^X) = 0$, and it follows that

$$T_q(\tau(t_a^X)) = \frac{x_0 F_p(\tau_0) + y_0 \sqrt{\lambda_R} \left(\frac{\lambda_I}{\mu + \nu + 2} \right)^{q-p} H_p(\tau_0)}{x_0 H_q(\tau_0) + y_0 \sqrt{\lambda_R} \left(\frac{\lambda_I}{\mu + \nu + 2} \right)^{q-p} F_q(\tau_0)} , \quad (5.4)$$

where from (4.10)

$$T_q(\tau(t)) = H_p(\tau(t))/F_q(\tau(t)) , \quad (5.5)$$

and we recall that $p + q = 1$. It follows that the time to annihilate X , t_a^X , is given by

* If we multiply the first equation of (2.1) by y , the second by x , add, and integrate, we obtain

$$x(t) y(t) = x_0 y_0 - \int_0^t \{a(s) y^2(s) + b(s) x^2(s)\} ds ,$$

which shows that $x(t)$ and $y(t)$ can have at most one finite zero. Hence, if $x(t_a^X) = 0$, then we know that $y(t) > 0$ for all $t \geq 0$.

$$t_a^X = \tau^{-1} \left\{ T_q^{-1} \left[\frac{x_0 F_p(\tau_0) + y_0 \sqrt{\lambda_R} \left(\frac{\lambda_I}{\mu + \nu + 2} \right)^{q-p} H_p(\tau_0)}{x_0 H_q(\tau_0) + y_0 \sqrt{\lambda_R} \left(\frac{\lambda_I}{\mu + \nu + 2} \right)^{q-p} F_q(\tau_0)} \right] \right\}. \quad (5.6)$$

Taylor and Comstock [7] have shown that $T_q(\tau)$ is strictly increasing and satisfies (see also (4.12) above)

$$0 \leq T_q(\tau) < \Gamma(p)/\Gamma(q), \quad (5.7)$$

where $p = 1-q$. It follows that in order for X to be annihilated in finite time, the right-hand side of (5.4) must be less than $\Gamma(p)/\Gamma(q)$. Let us observe that for $t_0 = -C = 0$, (5.4) simplifies to

$$T_q(\tau(t_a^X)) = \frac{x_0}{y_0 \sqrt{\lambda_R}} \left(\frac{\lambda_I}{\mu + \nu + 2} \right)^{p-q}. \quad (5.8)$$

Thus, we have proved the following theorem concerning force-annihilation prediction.

THEOREM 2: Consider combat between two homogeneous forces modelled by (2.1) with power attrition-rate coefficients (5.1). Assume that μ and $\nu > -1$ and that the above equations hold for all time. Then the X force will be annihilated in finite time if and only if

$$\begin{aligned}
& \Gamma(q) \left\{ x_0 F_p(\tau_0) + y_0 \sqrt{\lambda_R} \left(\frac{\lambda_I}{\mu + \nu + 2} \right)^{q-p} H_p(\tau_0) \right\} \\
& < \Gamma(p) \left\{ x_0 H_q(\tau_0) + y_0 \sqrt{\lambda_R} \left(\frac{\lambda_I}{\mu + \nu + 2} \right)^{q-p} F_q(\tau_0) \right\}, \quad (5.9)
\end{aligned}$$

where $q = (\nu + 1)/(\mu + \nu + 2)$ and $p = 1 - q$. For $t_0 = 0$ (i.e. $C = 0$ so that $\tau_0 = 0$), X will be annihilated in finite time if and only if

$$\frac{x_0}{y_0} < \frac{\Gamma(p)}{\Gamma(q)} \sqrt{\lambda_R} \left(\frac{\lambda_I}{\mu + \nu + 2} \right)^{q-p}. \quad (5.10)$$

6. Tabulation of LCS Functions.

This report contains the most extensive set of tables of the Lanchester-Clifford-Schläfli functions currently available. The Appendix contains tables of five-decimal-place values of the hyperbolic-like LCS functions $F_\alpha(x)$, $H_{1-\alpha}(x)$, and $T_\alpha(x)$ for various values of the argument x , namely $x = 0.00$ (0.01) 2.00 (0.1) 10.0, and $\alpha = 1/2, 1/3, 2/3, 1/4, 3/4, 1/5, 2/5, 3/5, 4/5, 2/7, 3/7, 4/7, 5/7, 4/9, 5/9, 3/11, 5/11, 6/11, 8/11, 5/13, 8/13, 5/17, 12/17, 5/21, \text{ and } 16/21$. These values of the index α correspond to $\mu, \nu = 0, 1/4, 1/2, 1, 1\frac{1}{2}, 2, \text{ and } 3$ in (3.8) and allow one to analyze, for example, a fairly wide variety of range capabilities for weapon systems in the constant-speed-attack model of Section 3. These

tables have been calculated by the recursive means given in Section 8 of [5]. A less extensive tabulation (namely, for $\alpha = 1/2, 1/3, 2/3, 1/4, 3/4, 1/5, 2/5, 3/5, 4/5, 3/7$, and $4/7$ corresponding to $\mu, \nu = 0, 1, 2, 3$) is to be found in a companion report [8].

A representative tabulation of the hyperbolic-like LCS functions $F_\alpha(x)$, $H_{1-\alpha}(x)$, and $T_\alpha(x)$ is given in, for example, Tables 8A and 8B of the Appendix for $\alpha = 3/5$. The values of the argument x are the same as those used for the tabulation of the hyperbolic functions by Abramowitz and Stegun [1]. We observe from Table 8B and (4.13) that the limiting value of $T_\alpha(x)$ as $x \rightarrow +\infty$ (here $\alpha = 3/5$) is quickly reached, with three-decimal-place accuracy already attained for $x = 4.5$. Moreover, the use of these tables (specifically, Tables 8A and 8B of the Appendix) for combat analysis is illustrated in the next section.

7. Numerical Examples

In this section we examine a couple of numerical examples to show some of the insights that may be gained into the dynamics of combat between two homogeneous forces from our results (see also [6]). These examples illustrate the use of the LCS functions $F_\alpha(x)$, $H_{1-\alpha}(x)$, and $T_\alpha(x)$ for analyzing "aimed-fire" combat modelled with the power attrition-rate coefficients with "no offset" (5.1). As in [4-7], we consider S. Bonder's model (3.2) for the constant-speed attack against a static defensive position. We will focus on the use of the LCS functions for predicting force annihilation, since the computing of force-level trajectories with Lanchester functions is adequately handled elsewhere (see [4-5]).

Let us accordingly consider the constant-speed attack of a homogeneous Y force against the static defensive position of a homogeneous X force (see Section 3 above for further modelling details, especially Figure 1). For our numerical computations, we assume that the fire effectiveness of the Y weapon system varies linearly with range, i.e.

$$\alpha(r) = \begin{cases} \alpha_0 \left(1 - \frac{r}{R_\alpha}\right) & \text{for } 0 \leq r \leq R_\alpha, \\ 0 & \text{for } R_\alpha \leq r, \end{cases} \quad (7.1)$$

and that the fire effectiveness of the X weapon system varies quadratically with range, i.e.

$$\beta(r) = \begin{cases} \beta_0 \left(1 - \frac{r}{R_\beta}\right)^2 & \text{for } 0 \leq r \leq R_\beta, \\ 0 & \text{for } R_\beta \leq r, \end{cases} \quad (7.2)$$

with $R_\alpha = R_\beta$, i.e. both weapon systems have the same maximum effective range. In other words, $\mu = 1$ in (3.4) and $\nu = 2$ for $\beta(r)$. We consider a battle modelled by the input data given in Table II. In terms of time as the independent variable, the attrition-rate coefficients (7.1) and (7.2) become via (3.3)

$$a(t) = k_a(t + C) \quad \text{and} \quad b(t) = k_b(t + C)^2, \quad (7.3)$$

Table II. Input Data for Numerical Examples

$$\mu = 1, \quad \nu = 2$$

$$\alpha_0 = 0.06 \text{ X casualties/minute/Y firer}$$

$$\beta_0 = 0.6 \text{ Y casualties/minute/X firer}$$

$$R_\alpha = R_\beta = 2000 \text{ meters}$$

$$v = 5 \text{ miles/hour}$$

where $R_\alpha = R_\beta$,

$$C = \frac{R_\alpha - R_0}{v}, \quad k_a = \frac{\alpha_0^v}{R_\alpha}, \quad \text{and} \quad k_b = \beta_0 \left(\frac{v}{R_\beta} \right)^2. \quad (7.4)$$

From the input data given in Table II, we compute the parameter values shown in Table III, since the transformed X force-level equation is given by (3.9) with $q = (v + 1)/(\mu + v + 2)$, $p = 1 - q$, $\mu = 1$, and $v = 2$. Thus, the X force level may be computed with $F_\alpha(\tau)$ and $H_{1-\alpha}(\tau)$ with $\alpha = q = 3/5$. Force-annihilation prediction involves the limiting value of $T_\alpha(\tau) = H_{1-\alpha}(\tau)/F_\alpha(\tau)$ as $\tau \rightarrow +\infty$. From Table 8B of the Appendix and Table III, we note the predicted agreement between $\Gamma(1-\alpha)/\Gamma(\alpha)$ and the limiting value of $T_\alpha(x)$ as $x \rightarrow +\infty$ [recall (4.13)] for $\alpha = q = 3/5$. We now consider two cases: (I) $R_0 = 2000$ meters, and (II) $R_0 = 1250$ meters.

When $R_0 = 2000$ meters (see Figure 3 of [4]), we have $C = 0$ and $\tau_0 = 0$. The maximum time that the battle can last is $t_{\max} = R_0/v = 14.91$ minutes, since at this time the attackers reach their final objective, i.e. the defender's position (again, see Figure 1). We now consider the qualitative behavior of the $\mu = 1$, $v = 2$ force-level trajectory shown in Figure 3 of [4]. Theorem 2 tells us that the X force can be annihilated in finite time if and only if

$$\frac{x_0}{y_0} < \frac{\Gamma(p)}{\Gamma(q)} \sqrt{\lambda_R} \left(\frac{\lambda_I}{\mu + v + 2} \right)^{q-p}, \quad (7.3)$$

where $q = 3/5$ and $p = 1 - q$. Using the numerical values in Table III, we compute from (7.3) that the X force can be annihilated in finite time if and only if

Table III. Parameter Values for Numerical Examples

$$k_a = 4.0233 \times 10^{-3} \text{ X casualties/minute}^\mu/\text{Y firer}$$

$$k_b = 2.6979 \times 10^{-3} \text{ Y casualties/minute}^\nu/\text{X firer}$$

$$p = 2/5, \quad q = 3/5$$

$$\Gamma(p)/\Gamma(q) = 1.48951$$

$$A = 0$$

$$\frac{x_0}{y_0} < 0.420 . \quad (7.4)$$

When the X force can be annihilated, its annihilation time is given by (5.8), which we rewrite here as

$$T_q(\tau(t_a^X)) = \frac{x_0}{y_0 \sqrt{\lambda_R}} \left(\frac{\lambda_I}{\mu + \nu + 2} \right)^{p-q} , \quad (7.5)$$

where

$$\tau(t) = \left(\frac{2\lambda_I}{\mu + \nu + 2} \right) t^{(\mu+\nu+2)/2} . \quad (7.6)$$

Thus, for the numerical values given in Table III, the time of annihilation of the X force is given by

$$T_q(\tau(t_a^X)) = 3.544 \frac{x_0}{y_0} , \quad (7.7)$$

with $q = 3/5$. We will now illustrate further computations for $x_0 = 10$ and $y_0 = 30$. From (7.4) we see that the X force can be annihilated in finite time (but we must verify that $t_a^X \leq t_{\max}$). In this case (7.7) becomes

$$T_q(\tau(t_a^X)) = 1.18122 . \quad (7.8)$$

We must now determine $\tau(t_a^X)$ such that $\tau(t_a^X) = T_q^{-1}(1.18122)$ by using interpolation methods and Tables 8A and 8B. From Table 8A, we find

$$T_q(\tau) = 1.18172 \quad \text{for} \quad = 1.01$$

$$T_q(\tau) = 1.17630 \quad \text{for} \quad = 1.00$$

so that using linear interpolation, we obtain

$$\tau(t_a^X) = 1.009, \quad (7.9)$$

whence use of (7.6) yields

$$t_a^X = 14.24 \text{ minutes}, \quad (7.10)$$

which is less than $t_{\max} = 14.91$ minutes so that the defending X force is indeed annihilated before the attacking Y force reaches its final objective. Since $r(t) = R_0 - vt$, we find that force separation at the instant of annihilation of the X force is

$$r_a^X = 89.8 \text{ meters}. \quad (7.11)$$

Further results may be computed in a similar fashion and are given in Table IV.

When $R_0 = 1250$ meters (see Figure 3 of [5]), we have $C = 5.5923$ minutes, $\tau_0 = 0.0975$, and $t_{\max} = R_0/v = 9.32$ minutes. In this case Theorem 2 tells us that the X force can be annihilated in finite time if and only if

Table IV. Annihilation of the X Force as a Function
of the Initial Force Ratio for $R_0 = 2000$ meters

(x_0/y_0)	t_a^X (minutes)	r_a^X (meters)
0.333	14.24	89.8
0.250	11.61	443.2
0.200	10.19	633.2

$$\frac{x_0}{y_0} < \sqrt{\lambda_R} \left(\frac{\lambda_I}{\mu + \nu + 2} \right)^{q-p} \frac{\Gamma(p)}{\Gamma(q)} \frac{\left\{ F_q(\tau_0) - \frac{\Gamma(q)}{\Gamma(p)} H_p(\tau_0) \right\}}{\left\{ F_p(\tau_0) - \frac{\Gamma(p)}{\Gamma(q)} H_q(\tau_0) \right\}}, \quad (7.12)$$

with $q = 3/5$ and $p = 1-q$. Using linear interpolation, we obtain from Tables 7A and 8A of the Appendix that for the numerical values of Table III

$$F_p(\tau_0) = 1.006, \quad H_q(\tau_0) = 0.044, \quad (7.13)$$

$$F_q(\tau_0) = 1.004, \quad H_p(\tau_0) = 0.223,$$

so that (7.12) says that the X force can be annihilated if and only if

$$\frac{x_0}{y_0} < 0.382. \quad (7.14)$$

When the X force can be annihilated, its annihilation time is given by (5.4), which we rewrite here as

$$T_q(\tau(t_a^X)) = \frac{\left\{ \frac{x_0}{y_0 \sqrt{\lambda_R}} \left(\frac{\lambda_I}{\mu + \nu + 2} \right)^{p-q} F_p(\tau_0) + H_p(\tau_0) \right\}}{\left\{ F_q(\tau_0) + \frac{x_0}{y_0 \sqrt{\lambda_R}} \left(\frac{\lambda_I}{\mu + \nu + 2} \right)^{p-q} H_q(\tau_0) \right\}}, \quad (7.15)$$

whence for the data of Table III

$$T_a(\tau(t_a^X)) = \frac{3.565u_0 + 0.223}{0.156u_0 + 1.004}, \quad (7.16)$$

where $u_0 = x_0/y_0$. Let us also record here that (3.11) yields

$$t = \left(\frac{\{\mu + \nu + 2\}\tau}{2\lambda_I} \right)^{2/(\mu+\nu+2)} - C . \quad (7.17)$$

We will again illustrate further computations for $x_0 = 10$ and $y_0 = 30$.

From (7.14) we see that the X force can be annihilated in finite time (but again we must investigate whether or not $t_a^X \leq t_{\max}$). In this case (7.16) becomes

$$T_q(\tau(t_a^X)) = 1.33651 , \quad (7.18)$$

whence Table 8A of the Appendix and linear interpolation yield

$$\tau(t_a^X) = 1.397 , \quad (7.19)$$

so that by (7.17)

$$t_a^X = 10.63 \text{ minutes} . \quad (7.20)$$

Since $t_{\max} = R_0/\nu = 9.32$ minutes $< t_a^X$, we see that the attacking Y force overruns the defender's position before annihilation of the X force occurs. Thus, the battle ends with $x_f = x(t_f) > 0$ and $y_f > 0$ at $t_f = t_{\max} = 9.32$ minutes. Corresponding to $t_f = 9.32$ minutes is $\tau_f = 1.1318$, and then Table 8A of the Appendix yields

$$F_q(\tau_f = 1.1318) = 1.589 , \quad H_p(1.1318) = 1.973 , \quad (7.21)$$

whence via (2.4), (4.8), (4.9), and (7.13) we obtain

$$x_f = x(t_f) = x(r = 0) = 1.35 . \quad (7.22)$$

Some further numerical results are given in Table V. Again, these parametric results should be contrasted with the single $\mu = 1$, $\nu = 2$ force-level trajectory shown in Figure 3 of [5].

8. Final Remarks

In the previous section above, we have seen how the LCS functions allow one to conveniently obtain much valuable information about the model (2.1) with power attrition-rate coefficients (3.8) without having to explicitly compute the entire force-level trajectories. Previously we were limited to computing only force-level trajectories (see [4-5]). With the availability of these tabulations of LCS functions (see the Appendix of this report and [8]), we can now tell who is going to be annihilated and when this event will happen without having to compute the trajectories. Not only did we answer questions about the qualitative behavior of the model (e.g. force annihilation) for specific values of, for example, initial force levels but also for a range of values of the initial force ratio (i.e. parametric analysis of model behavior).

Table V. Annihilation of the X Force as a Function
of the Initial Force Ratio for $R_0 = 1250$ meters

(x_0/y_0)	t_a^X (minutes)	r_a^X (meters)
0.333	10.63	_____ [†]
0.250	7.56	235.9
0.200	6.17	422.8

[†] $t_{\max} = 9.32$ minutes and $x_f = x(r=0) = 1.35$.

The results of this report may be used for other parametric analyses, e.g. parametric dependence of battle outcome on attrition-rate coefficients. Thus, the contents of this report allow one to develop important insights into the dynamics of combat between two homogeneous forces with temporal variations in fire effectiveness. With the availability of tabulations of the LCS functions, one can now analyze such combat modelled by the power attrition-rate coefficients (3.8) with somewhat the same facility as he can for the constant-coefficient case and thus aid in parametric analyses. For further discussions of the significance of such results for military operations research, the reader is directed to [6] and [7].

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APPENDIX: Tabulation of the LCS Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and $T_{\alpha}(x)$ for
 $\alpha = 1/2, 1/3, 2/3, 1/4, 3/4, 1/5, 2/5, 3/5, 4/5, 2/7, 3/7,$
 $4/7, 5/7, 4/9, 5/9, 3/11, 5/11, 6/11, 8/11, 5/13, 8/13,$
 $5/17, 12/17, 5/21, \text{ and } 16/21.$

x	$F_{1/2}(x)$	$H_{1/2}(x)$	$T_{1/2}(x)$	x	$F_{1/2}(x)$	$H_{1/2}(x)$	$T_{1/2}(x)$	x	$F_{1/2}(x)$	$H_{1/2}(x)$	$T_{1/2}(x)$
0.0	1.00000	0.0	0.0	0.50	1.12463	0.32110	0.46212	1.00	1.54388	1.17520	0.76159
0.1	1.00005	0.01000	0.01000	0.51	1.13089	0.32440	0.46995	1.01	1.54654	1.17699	0.76579
0.2	1.00020	0.02000	0.02000	0.52	1.13727	0.32775	0.47770	1.02	1.54920	1.17878	0.76999
0.3	1.00045	0.03000	0.02999	0.53	1.14377	0.33110	0.48538	1.03	1.55184	1.18057	0.77419
0.4	1.00080	0.04001	0.03998	0.54	1.15038	0.33445	0.49299	1.04	1.55448	1.18236	0.77839
0.5	1.00125	0.05002	0.04996	0.55	1.15700	0.33780	0.50052	1.05	1.55712	1.18415	0.78259
0.6	1.00180	0.06004	0.05993	0.56	1.16362	0.34115	0.50805	1.06	1.55976	1.18594	0.78679
0.7	1.00245	0.07006	0.06993	0.57	1.17024	0.34450	0.51558	1.07	1.56240	1.18773	0.79099
0.8	1.00320	0.08009	0.07993	0.58	1.17686	0.34785	0.52311	1.08	1.56504	1.18952	0.79519
0.9	1.00405	0.09012	0.08996	0.59	1.18348	0.35120	0.53064	1.09	1.56768	1.19131	0.79939
1.0	1.00500	0.10017	0.09997	0.60	1.19010	0.35455	0.53817	1.10	1.57032	1.19310	0.80359
1.1	1.00606	0.11022	0.10996	0.61	1.19672	0.35790	0.54570	1.11	1.57296	1.19489	0.80779
1.2	1.00721	0.12029	0.11993	0.62	1.20334	0.36125	0.55323	1.12	1.57560	1.19668	0.81199
1.3	1.00846	0.13037	0.12999	0.63	1.21000	0.36460	0.56076	1.13	1.57824	1.19847	0.81619
1.4	1.00980	0.14046	0.13999	0.64	1.21662	0.36795	0.56829	1.14	1.58088	1.19999	0.82039
1.5	1.01127	0.15056	0.14999	0.65	1.22324	0.37130	0.57582	1.15	1.58352	1.20151	0.82459
1.6	1.01283	0.16068	0.15993	0.66	1.22986	0.37465	0.58335	1.16	1.58616	1.20303	0.82879
1.7	1.01448	0.17082	0.16993	0.67	1.23648	0.37800	0.59088	1.17	1.58880	1.20455	0.83299
1.8	1.01624	0.18097	0.17993	0.68	1.24310	0.38135	0.59841	1.18	1.59144	1.20607	0.83719
1.9	1.01810	0.19115	0.18993	0.69	1.24972	0.38470	0.60594	1.19	1.59408	1.20759	0.84139
2.0	1.02007	0.20134	0.19997	0.70	1.25634	0.38805	0.61347	1.20	1.59672	1.20911	0.84559
2.1	1.02213	0.21155	0.20993	0.71	1.26296	0.39140	0.62100	1.21	1.59936	1.21063	0.84979
2.2	1.02430	0.22178	0.21993	0.72	1.26958	0.39475	0.62853	1.22	1.60200	1.21215	0.85399
2.3	1.02657	0.23203	0.22993	0.73	1.27620	0.39810	0.63606	1.23	1.60464	1.21367	0.85819
2.4	1.02894	0.24231	0.23993	0.74	1.28282	0.40145	0.64359	1.24	1.60728	1.21519	0.86239
2.5	1.03141	0.25261	0.24993	0.75	1.28944	0.40480	0.65112	1.25	1.60992	1.21671	0.86659
2.6	1.03399	0.26294	0.25993	0.76	1.29606	0.40815	0.65865	1.26	1.61256	1.21823	0.87079
2.7	1.03667	0.27329	0.26993	0.77	1.30268	0.41150	0.66618	1.27	1.61520	1.21975	0.87499
2.8	1.03946	0.28368	0.27993	0.78	1.30930	0.41485	0.67371	1.28	1.61784	1.22127	0.87919
2.9	1.04235	0.29408	0.28993	0.79	1.31592	0.41820	0.68124	1.29	1.62048	1.22279	0.88339
3.0	1.04534	0.30452	0.29993	0.80	1.32254	0.42155	0.68877	1.30	1.62312	1.22431	0.88759
3.1	1.04844	0.31499	0.30993	0.81	1.32916	0.42490	0.69630	1.31	1.62576	1.22583	0.89179
3.2	1.05164	0.32549	0.31993	0.82	1.33578	0.42825	0.70383	1.32	1.62840	1.22735	0.89599
3.3	1.05495	0.33602	0.32993	0.83	1.34240	0.43160	0.71136	1.33	1.63104	1.22887	0.89999
3.4	1.05836	0.34659	0.33993	0.84	1.34902	0.43495	0.71889	1.34	1.63368	1.23039	0.90419
3.5	1.06188	0.35719	0.34993	0.85	1.35564	0.43830	0.72642	1.35	1.63632	1.23191	0.90839
3.6	1.06550	0.36783	0.35993	0.86	1.36226	0.44165	0.73395	1.36	1.63896	1.23343	0.91259
3.7	1.06923	0.37850	0.36993	0.87	1.36888	0.44500	0.74148	1.37	1.64160	1.23495	0.91679
3.8	1.07307	0.38921	0.37993	0.88	1.37550	0.44835	0.74901	1.38	1.64424	1.23647	0.92099
3.9	1.07702	0.39996	0.38993	0.89	1.38212	0.45170	0.75654	1.39	1.64688	1.23799	0.92519
4.0	1.08107	0.41075	0.39993	0.90	1.38874	0.45505	0.76407	1.40	1.64952	1.23951	0.92939
4.1	1.08523	0.42158	0.40993	0.91	1.39536	0.45840	0.77160	1.41	1.65216	1.24103	0.93359
4.2	1.08950	0.43246	0.41993	0.92	1.40200	0.46175	0.77913	1.42	1.65480	1.24255	0.93779
4.3	1.09388	0.44337	0.42993	0.93	1.40862	0.46510	0.78666	1.43	1.65744	1.24407	0.94199
4.4	1.09837	0.45434	0.43993	0.94	1.41524	0.46845	0.79419	1.44	1.66008	1.24559	0.94619
4.5	1.10297	0.46534	0.44993	0.95	1.42186	0.47180	0.80172	1.45	1.66272	1.24711	0.95039
4.6	1.10768	0.47640	0.45993	0.96	1.42848	0.47515	0.80925	1.46	1.66536	1.24863	0.95459
4.7	1.11250	0.48750	0.46993	0.97	1.43510	0.47850	0.81678	1.47	1.66800	1.25015	0.95879
4.8	1.11743	0.49865	0.47993	0.98	1.44172	0.48185	0.82431	1.48	1.67064	1.25167	0.96299
4.9	1.12247	0.50984	0.48993	0.99	1.44834	0.48520	0.83184	1.49	1.67328	1.25319	0.96719
5.0	1.12763	0.52110	0.49993	1.00	1.45496	0.48855	0.83937	1.50	1.67592	1.25471	0.97139

TABLE 1A. Lanchester-Clifford-Schlafli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and

$T_{\alpha}(x)$ for $\alpha = 1/2$ and x from 0.00 to 1.50.

$\alpha = 1/2$

x	$F_{1/2}(x)$	$H_{1/2}(x)$	$T_{1/2}(x)$	x	$F_{1/2}(x)$	$H_{1/2}(x)$	$T_{1/2}(x)$	x	$F_{1/2}(x)$	$H_{1/2}(x)$	$T_{1/2}(x)$
1.50	2.35241	2.12928	0.90515	2.0	3.76220	3.62686	0.96403	6.0	201.71564	201.71316	0.99999
1.51	2.37382	2.15191	0.90694	2.1	4.14431	4.02186	0.97045	6.1	222.93001	222.92776	0.99999
1.52	2.39547	2.17476	0.90870	2.2	4.52691	4.40471	0.97574	6.2	246.37554	246.37354	0.99999
1.53	2.41736	2.19782	0.91042	2.3	4.91022	4.78766	0.98010	6.3	272.28687	272.28504	0.99999
1.54	2.43949	2.22110	0.91212	2.4	5.29395	5.17062	0.98367	6.4	300.92135	300.91969	0.99999
1.55	2.46186	2.24461	0.91379	2.5	5.67829	5.55495	0.98661	6.5	332.57157	332.57006	1.00000
1.56	2.48448	2.26834	0.91542	2.6	6.06327	5.94047	0.98910	6.6	367.54927	367.54799	1.00000
1.57	2.50730	2.29229	0.91700	2.7	6.44887	6.32713	0.99103	6.7	406.20353	406.20230	1.00000
1.58	2.53038	2.31649	0.91850	2.8	6.83513	6.71492	0.99263	6.8	448.92420	448.92309	1.00000
1.59	2.55384	2.34091	0.92015	2.9	7.22207	7.10398	0.99396	6.9	496.13786	496.13685	1.00000
1.60	2.57769	2.36557	0.92167	3.0	7.60976	7.49436	0.99505	7.0	548.31704	548.31612	1.00000
1.61	2.60183	2.39046	0.92316	3.1	7.99823	7.88605	0.99595	7.1	605.98395	605.98312	1.00000
1.62	2.62629	2.41560	0.92462	3.2	8.38750	8.27908	0.99668	7.2	669.71776	669.71701	1.00000
1.63	2.65100	2.44107	0.92606	3.3	8.77756	8.67348	0.99728	7.3	740.15030	740.14963	1.00000
1.64	2.67454	2.46686	0.92747	3.4	9.16844	9.06919	0.99777	7.4	817.94252	817.94191	1.00000
1.65	2.69951	2.49296	0.92886	3.5	9.56012	9.46623	0.99813	7.5	904.02148	904.02093	1.00000
1.66	2.72472	2.51937	0.93023	3.6	9.95262	9.86568	0.99845	7.6	999.09220	999.09170	1.00000
1.67	2.75027	2.54609	0.93155	3.7	10.34600	10.26741	0.99874	7.7	1104.17422	1104.17377	1.00000
1.68	2.77596	2.57311	0.93285	3.8	10.74027	10.67149	0.99900	7.8	1220.30119	1220.30078	1.00000
1.69	2.80200	2.60044	0.93415	3.9	11.13545	11.07788	0.99918	7.9	1348.64135	1348.64098	1.00000
1.70	2.82832	2.62807	0.93541	4.0	11.53154	11.48661	0.99933	8.0	1490.47916	1490.47883	1.00000
1.71	2.85491	2.65599	0.93665	4.1	11.92854	11.89773	0.99945	8.1	1647.23119	1647.23389	1.00000
1.72	2.88180	2.68420	0.93786	4.2	12.32646	12.31133	0.99955	8.2	1820.47529	1820.47502	1.00000
1.73	2.90897	2.71271	0.93906	4.3	12.72521	12.72741	0.99963	8.3	2011.93632	2011.93607	1.00000
1.74	2.93643	2.74141	0.94023	4.4	13.12490	13.14051	0.99970	8.4	2223.55349	2223.55326	1.00000
1.75	2.96419	2.77041	0.94138	4.5	13.52544	13.54773	0.99975	8.5	2457.38452	2457.38432	1.00000
1.76	2.99225	2.80000	0.94250	4.6	13.92684	13.95004	0.99980	8.6	2715.82589	2715.82570	1.00000
1.77	3.02062	2.83029	0.94360	4.7	14.32910	14.35322	0.99983	8.7	3001.45819	3001.45803	1.00000
1.78	3.04929	2.86125	0.94470	4.8	14.73222	14.75733	0.99986	8.8	3317.12109	3317.12193	1.00000
1.79	3.07821	2.89291	0.94576	4.9	15.13721	15.16333	0.99989	8.9	3665.98684	3665.98670	1.00000
1.80	3.10747	2.92527	0.94681	5.0	15.54400	15.57111	0.99991	9.0	4051.54203	4051.54190	1.00000
1.81	3.13705	2.95834	0.94783	5.1	15.95259	15.98071	0.99993	9.1	4477.64841	4477.64830	1.00000
1.82	3.16694	2.99212	0.94884	5.2	16.36299	16.39211	0.99994	9.2	4948.56458	4948.56448	1.00000
1.83	3.19715	3.02657	0.94983	5.3	16.77521	16.80533	0.99995	9.3	5469.00965	5469.00956	1.00000
1.84	3.22768	3.06166	0.95080	5.4	17.18926	17.22041	0.99996	9.4	6044.19041	6044.19032	1.00000
1.85	3.25853	3.10129	0.95175	5.5	17.60515	17.63733	0.99997	9.5	6679.86345	6679.86338	1.00000
1.86	3.28970	3.14166	0.95269	5.6	18.02289	18.05611	0.99998	9.6	7382.39082	7382.39075	1.00000
1.87	3.32120	3.18277	0.95360	5.7	18.44249	18.47673	0.99998	9.7	8158.60365	8158.60357	1.00000
1.88	3.35322	3.22461	0.95450	5.8	18.86394	18.89921	0.99998	9.8	9016.87249	9016.87244	1.00000
1.89	3.38574	3.26718	0.95537	5.9	19.28725	19.32356	0.99998	9.9	9965.18524	9965.18519	1.00000
1.90	3.41773	3.31046	0.95624	6.0	201.71564	201.71316	0.99999	10.0	11013.23252	11013.23237	1.00000
1.91	3.45008	3.35446	0.95709								
1.92	3.48278	3.39918	0.95792								
1.93	3.51573	3.44461	0.95873								
1.94	3.54894	3.49077	0.95953								
1.95	3.58248	3.53766	0.96032								
1.96	3.61634	3.58529	0.96115								
1.97	3.65051	3.63366	0.96195								
1.98	3.68500	3.68277	0.96270								
1.99	3.72011	3.73261	0.96331								
2.00	3.76220	3.78311	0.96403								

TABLE 1B. Lanchester-Clifford-Schlafli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and $T_{\alpha}(x)$ for $\alpha = 1/2$ and x from 1.50 to 10.0.

x	$F_{1/3}(x)$	$H_{2/3}(x)$	$T_{1/3}(x)$	x	$F_{1/3}(x)$	$H_{2/3}(x)$	$T_{1/3}(x)$	x	$F_{1/3}(x)$	$H_{2/3}(x)$	$T_{1/3}(x)$
0.0	1.00000	0.0	0.0	0.50	1.19193	0.4520	0.20571	1.00	1.82287	0.68885	0.37789
0.01	1.00009	0.00128	0.00128	0.51	1.19088	0.45214	0.21013	1.01	1.84096	0.70005	0.38026
0.02	1.00023	0.00233	0.00233	0.52	1.18999	0.45219	0.21452	1.02	1.85785	0.71135	0.38259
0.03	1.00040	0.00355	0.00355	0.53	1.18928	0.45222	0.21888	1.03	1.87467	0.72268	0.38486
0.04	1.00060	0.00481	0.00481	0.54	1.18874	0.45227	0.22321	1.04	1.89150	0.73401	0.38714
0.05	1.00088	0.00617	0.00617	0.55	1.18838	0.45233	0.22750	1.05	1.91578	0.74532	0.38935
0.06	1.00127	0.00764	0.00764	0.56	1.18819	0.45239	0.23178	1.06	1.93511	0.75662	0.39153
0.07	1.00176	0.00924	0.00924	0.57	1.18805	0.45245	0.23606	1.07	1.95449	0.76795	0.39368
0.08	1.00236	0.01097	0.01097	0.58	1.18795	0.45252	0.24031	1.08	1.97385	0.77928	0.39578
0.09	1.00308	0.01284	0.01284	0.59	1.18789	0.45259	0.24453	1.09	1.99317	0.79061	0.39785
0.10	1.00391	0.01484	0.01484	0.60	1.18787	0.45267	0.24872	1.10	2.01250	0.80194	0.39989
0.11	1.00485	0.01697	0.01697	0.61	1.18789	0.45275	0.25291	1.11	2.03182	0.81327	0.40189
0.12	1.00590	0.01933	0.01933	0.62	1.18793	0.45283	0.25707	1.12	2.05114	0.82460	0.40389
0.13	1.00707	0.02184	0.02184	0.63	1.18801	0.45291	0.26122	1.13	2.07047	0.83593	0.40589
0.14	1.00836	0.02450	0.02450	0.64	1.18811	0.45300	0.26537	1.14	2.08980	0.84726	0.40789
0.15	1.00978	0.02731	0.02731	0.65	1.18822	0.45309	0.26952	1.15	2.10912	0.85859	0.40985
0.16	1.01133	0.03027	0.03027	0.66	1.18834	0.45318	0.27367	1.16	2.12844	0.86992	0.41180
0.17	1.01299	0.03339	0.03339	0.67	1.18847	0.45327	0.27782	1.17	2.14776	0.88125	0.41376
0.18	1.01477	0.03666	0.03666	0.68	1.18861	0.45336	0.28197	1.18	2.16708	0.89258	0.41571
0.19	1.01667	0.04009	0.04009	0.69	1.18876	0.45345	0.28612	1.19	2.18640	0.90391	0.41767
0.20	1.01869	0.04368	0.04368	0.70	1.18892	0.45354	0.29027	1.20	2.20572	0.91524	0.41962
0.21	1.02083	0.04743	0.04743	0.71	1.18909	0.45363	0.29442	1.21	2.22504	0.92657	0.42158
0.22	1.02309	0.05134	0.05134	0.72	1.18927	0.45372	0.29857	1.22	2.24436	0.93790	0.42353
0.23	1.02547	0.05541	0.05541	0.73	1.18946	0.45381	0.30272	1.23	2.26368	0.94923	0.42549
0.24	1.02797	0.05964	0.05964	0.74	1.18966	0.45390	0.30687	1.24	2.28300	0.96056	0.42744
0.25	1.03059	0.06404	0.06404	0.75	1.18987	0.45399	0.31102	1.25	2.30232	0.97189	0.42940
0.26	1.03333	0.06861	0.06861	0.76	1.19009	0.45408	0.31517	1.26	2.32164	0.98322	0.43136
0.27	1.03619	0.07335	0.07335	0.77	1.19032	0.45417	0.31932	1.27	2.34096	0.99455	0.43332
0.28	1.03917	0.07826	0.07826	0.78	1.19056	0.45426	0.32347	1.28	2.36028	1.00588	0.43528
0.29	1.04227	0.08334	0.08334	0.79	1.19081	0.45435	0.32762	1.29	2.37960	1.01721	0.43724
0.30	1.04549	0.08859	0.08859	0.80	1.19107	0.45444	0.33177	1.30	2.39892	1.02854	0.43920
0.31	1.04883	0.09401	0.09401	0.81	1.19134	0.45453	0.33592	1.31	2.41824	1.03987	0.44116
0.32	1.05229	0.09959	0.09959	0.82	1.19162	0.45462	0.34007	1.32	2.43756	1.05120	0.44312
0.33	1.05587	0.10534	0.10534	0.83	1.19191	0.45471	0.34422	1.33	2.45688	1.06253	0.44508
0.34	1.05957	0.11126	0.11126	0.84	1.19221	0.45480	0.34837	1.34	2.47620	1.07386	0.44704
0.35	1.06339	0.11735	0.11735	0.85	1.19252	0.45489	0.35252	1.35	2.49552	1.08519	0.44900
0.36	1.06733	0.12361	0.12361	0.86	1.19284	0.45498	0.35667	1.36	2.51484	1.09652	0.45096
0.37	1.07139	0.13004	0.13004	0.87	1.19317	0.45507	0.36082	1.37	2.53416	1.10785	0.45292
0.38	1.07557	0.13664	0.13664	0.88	1.19351	0.45516	0.36497	1.38	2.55348	1.11918	0.45488
0.39	1.07987	0.14341	0.14341	0.89	1.19386	0.45525	0.36912	1.39	2.57280	1.13051	0.45684
0.40	1.08429	0.15035	0.15035	0.90	1.19422	0.45534	0.37327	1.40	2.59212	1.14184	0.45880
0.41	1.08883	0.15746	0.15746	0.91	1.19459	0.45543	0.37742	1.41	2.61144	1.15317	0.46076
0.42	1.09349	0.16474	0.16474	0.92	1.19497	0.45552	0.38157	1.42	2.63076	1.16450	0.46272
0.43	1.09827	0.17219	0.17219	0.93	1.19536	0.45561	0.38572	1.43	2.65008	1.17583	0.46468
0.44	1.10317	0.17981	0.17981	0.94	1.19576	0.45570	0.38987	1.44	2.66940	1.18716	0.46664
0.45	1.10819	0.18760	0.18760	0.95	1.19617	0.45579	0.39402	1.45	2.68872	1.19849	0.46860
0.46	1.11333	0.19557	0.19557	0.96	1.19659	0.45588	0.39817	1.46	2.70804	1.20982	0.47056
0.47	1.11859	0.20372	0.20372	0.97	1.19702	0.45597	0.40232	1.47	2.72736	1.22115	0.47252
0.48	1.12397	0.21205	0.21205	0.98	1.19746	0.45606	0.40647	1.48	2.74668	1.23248	0.47448
0.49	1.12947	0.22056	0.22056	0.99	1.19791	0.45615	0.41062	1.49	2.76600	1.24381	0.47644
0.50	1.19193	0.24520	0.24520	1.00	1.82287	0.45624	0.41477	1.50	3.07330	1.40540	0.45729

TABLE 2A. Lanchester-Clifford-Schlafli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and $T_{\alpha}(x)$ for $\alpha = 1/3$ and x from 0.00 to 1.50.

x	$F_{1/3}(x)$	$H_{2/3}(x)$	$T_{1/3}(x)$	x	$F_{1/3}(x)$	$H_{2/3}(x)$	$T_{1/3}(x)$	x	$F_{1/3}(x)$	$H_{2/3}(x)$	$T_{1/3}(x)$	$\alpha = 1/3$
1.50	3.07330	1.40540	0.45729	2.0	5.29834	2.58494	0.48788	6.0	359.65982	181.79456	0.50546	
1.51	3.10669	1.42363	0.45825	2.1	5.50306	2.59196	0.49110	6.1	398.71187	201.34315	0.50546	
1.52	3.14047	1.44204	0.45918	2.2	5.58916	2.59333	0.49316	6.2	441.57222	223.09475	0.50546	
1.53	3.17464	1.46064	0.46010	2.3	7.34609	3.04280	0.49589	6.3	489.91515	247.03498	0.50547	
1.54	3.20920	1.47943	0.46100	2.4	7.34609	3.04280	0.49765	6.4	543.02156	274.47872	0.50547	
1.55	3.24416	1.49840	0.46188	2.5	9.12445	4.55325	0.49908	6.5	601.85414	304.21683	0.50547	
1.56	3.27957	1.51757	0.46274	2.6	1.16326	5.58381	0.50025	6.6	667.28116	337.16033	0.50547	
1.57	3.31527	1.53692	0.46359	2.7	1.32190	6.57464	0.50121	6.7	739.22482	373.56355	0.50547	
1.58	3.35143	1.55648	0.46442	2.8	1.48362	7.52854	0.50199	6.8	819.19834	414.07770	0.50547	
1.59	3.38802	1.57622	0.46524	2.9	1.65032	8.45399	0.50263	6.9	907.78370	458.85486	0.50547	
1.60	3.42501	1.59617	0.46603	3.0	1.82332	9.35882	0.50315	7.0	1005.90533	508.55229	0.50547	
1.61	3.46243	1.61632	0.46682	3.1	1.61932	8.51733	0.50357	7.1	1114.38697	563.38731	0.50547	
1.62	3.50027	1.63668	0.46759	3.2	1.33319	9.44236	0.50392	7.2	1234.38973	624.52262	0.50547	
1.63	3.53857	1.65724	0.46834	3.3	2.50003	10.4137	0.50420	7.3	1364.38481	691.52223	0.50547	
1.64	3.57724	1.67800	0.46908	3.4	2.50017	12.06058	0.50443	7.4	1515.53846	766.52201	0.50547	
1.65	3.61637	1.69888	0.46980	3.5	2.58048	13.41345	0.50462	7.5	1679.49784	848.91694	0.50547	
1.66	3.65595	1.72017	0.47051	3.6	2.54665	14.51345	0.50478	7.6	1860.57158	940.45914	0.50547	
1.67	3.69598	1.74158	0.47121	3.7	3.83344	16.57770	0.50490	7.7	2061.13333	1041.43675	0.50547	
1.68	3.73645	1.76320	0.47189	3.8	3.54808	18.42367	0.50501	7.8	2283.23826	1154.10374	0.50547	
1.69	3.77738	1.78504	0.47256	3.9	3.542959	20.47111	0.50509	7.9	2529.19452	1278.42680	0.50547	
1.70	3.81877	1.80710	0.47322	4.0	4.501920	22.74186	0.50516	8.0	2801.55706	1416.02741	0.50547	
1.71	3.86062	1.82939	0.47386	4.1	4.59981	25.6018	0.50522	8.1	3103.15001	1568.45071	0.50547	
1.72	3.90294	1.85191	0.47449	4.2	5.52151	28.05269	0.50526	8.2	3437.11955	1737.32117	0.50547	
1.73	3.94573	1.87465	0.47511	4.3	6.64609	31.48972	0.50530	8.3	3813.30150	1921.37951	0.50547	
1.74	3.98900	1.89762	0.47571	4.4	6.64368	34.58361	0.50533	8.4	4216.36450	2121.53791	0.50547	
1.75	4.03275	1.92083	0.47631	4.5	7.596846	38.39105	0.50538	8.5	4669.73184	2360.40025	0.50547	
1.76	4.07699	1.94438	0.47689	4.6	8.31750	42.11245	0.50538	8.6	5171.70827	2614.13334	0.50547	
1.77	4.12172	1.96796	0.47746	4.7	9.57590	47.09256	0.50539	8.7	5727.49440	2895.06550	0.50547	
1.78	4.16695	1.99180	0.47802	4.8	10.83319	52.48098	0.50541	8.8	6342.84633	3206.10628	0.50547	
1.79	4.21267	2.01606	0.47857	4.9	11.521685	58.23262	0.50542	8.9	7024.13486	3550.47590	0.50547	
1.80	4.25891	2.04048	0.47911	5.0	121.80222	64.09830	0.50543	9.0	7778.4109	3921.73848	0.50547	
1.81	4.30546	2.06514	0.47963	5.1	141.80255	71.67541	0.50543	9.1	8613.47893	4333.03863	0.50547	
1.82	4.35292	2.09006	0.48015	5.2	151.30446	79.0854	0.50544	9.2	9537.45338	4785.04299	0.50547	
1.83	4.40071	2.11523	0.48066	5.3	178.48472	86.19033	0.50543	9.3	10517.45100	5281.43399	0.50547	
1.84	4.44903	2.14067	0.48115	5.4	193.51347	97.81231	0.50543	9.4	11694.45100	5811.50134	0.50547	
1.85	4.49787	2.16636	0.48164	5.5	214.61111	108.47582	0.50545	5.5	12948.83537	6545.22299	0.50547	
1.86	4.54724	2.19311	0.48212	5.6	237.98318	120.29309	0.50546	5.6	14337.39381	7247.09447	0.50547	
1.87	4.59719	2.22053	0.48258	5.7	261.89517	133.38841	0.50546	5.7	15874.52207	8024.06427	0.50547	
1.88	4.64767	2.24853	0.48304	5.8	294.60376	147.89943	0.50546	5.8	17576.09265	8884.15390	0.50547	
1.89	4.69870	2.27718	0.48349	5.9	324.60368	163.97856	0.50546	5.9	19459.66675	9836.24050	0.50547	
1.90	4.75030	2.29882	0.48393	6.0	359.65982	181.79456	0.50546	10.0	21544.67965	10890.14799	0.50547	
1.91	4.80246	2.32261	0.48436									
1.92	4.85519	2.34673	0.48479									
1.93	4.90850	2.37160	0.48520									
1.94	4.96239	2.39737	0.48561									
1.95	5.01688	2.42422	0.48600									
1.96	5.07198	2.45207	0.48639									
1.97	5.12763	2.48091	0.48678									
1.98	5.18392	2.51075	0.48715									
1.99	5.24082	2.54159	0.48752									
2.00	5.29834	2.58494	0.48788									

TABLE 2B. Lanchester-Clifford-Schlafli Functions $F_\alpha(x)$, $H_{1-\alpha}(x)$, and

$T_\alpha(x)$ for $\alpha = 1/3$ and x from 1.50 to 10.0.

x	$F_{2/3}(x)$	$H_{1/3}(x)$	$T_{2/3}(x)$	x	$F_{2/3}(x)$	$H_{1/3}(x)$	$T_{2/3}(x)$	x	$F_{2/3}(x)$	$H_{1/3}(x)$	$T_{2/3}(x)$
0.0	1.00000	0.0	0.0	0.50	1.09552	1.47111	1.13837	1.00	1.40492	2.26370	1.61230
0.1	1.00004	0.08772	0.13924	0.51	1.09446	1.46603	1.11511	1.01	1.41215	2.26974	1.61864
0.2	1.00015	0.13926	0.18244	0.52	1.09347	1.46095	1.11646	1.02	1.42160	2.27694	1.62488
0.3	1.00034	0.18250	0.22098	0.53	1.10158	1.32283	1.11724	1.03	1.43096	2.28428	1.63103
0.4	1.00060	0.22111	0.25838	0.54	1.11176	1.32283	1.11895	1.04	1.43959	2.29179	1.63708
0.5	1.00094	0.25862	0.29579	0.55	1.12404	1.34178	1.12228	1.05	1.44832	2.30046	1.64303
0.6	1.00132	0.29594	0.33296	0.56	1.13867	1.34178	1.12473	1.06	1.45715	2.30928	1.64899
0.7	1.00174	0.33304	0.37006	0.57	1.15467	1.34178	1.12719	1.07	1.46603	2.31824	1.65495
0.8	1.00220	0.37012	0.40714	0.58	1.17207	1.34178	1.12965	1.08	1.47495	2.32733	1.66091
0.9	1.00269	0.40719	0.44421	0.59	1.19076	1.34178	1.13211	1.09	1.48391	2.33654	1.66691
1.0	1.00320	0.44426	0.48128	0.60	1.21076	1.34178	1.13457	1.10	1.49292	2.34586	1.67296
1.1	1.00375	0.48133	0.51835	0.61	1.23207	1.34178	1.13703	1.11	1.50206	2.35528	1.67901
1.2	1.00434	0.51840	0.55542	0.62	1.25467	1.34178	1.13949	1.12	1.51133	2.36480	1.68506
1.3	1.00496	0.55547	0.59249	0.63	1.27856	1.34178	1.14195	1.13	1.52071	2.37441	1.69111
1.4	1.00561	0.59254	0.62956	0.64	1.30374	1.34178	1.14441	1.14	1.53020	2.38412	1.69716
1.5	1.00629	0.62961	0.66663	0.65	1.33021	1.34178	1.14687	1.15	1.54079	2.39393	1.70321
1.6	1.00700	0.66668	0.70370	0.66	1.35796	1.34178	1.14933	1.16	1.55148	2.40384	1.70926
1.7	1.00773	0.70377	0.74077	0.67	1.38700	1.34178	1.15179	1.17	1.56227	2.41385	1.71531
1.8	1.00849	0.74084	0.77784	0.68	1.41734	1.34178	1.15425	1.18	1.57316	2.42396	1.72136
1.9	1.00927	0.77791	0.81491	0.69	1.44907	1.34178	1.15671	1.19	1.58415	2.43417	1.72741
2.0	1.01007	0.81498	0.85198	0.70	1.48220	1.34178	1.15917	1.20	1.59524	2.44448	1.73346
2.1	1.01089	0.85205	0.88905	0.71	1.51673	1.34178	1.16163	1.21	1.60643	2.45489	1.73951
2.2	1.01173	0.88912	0.92612	0.72	1.55266	1.34178	1.16409	1.22	1.61772	2.46540	1.74556
2.3	1.01259	0.92619	0.96319	0.73	1.59000	1.34178	1.16655	1.23	1.62911	2.47591	1.75161
2.4	1.01347	0.96326	1.00026	0.74	1.62873	1.34178	1.16901	1.24	1.64060	2.48652	1.75766
2.5	1.01437	1.00033	1.03733	0.75	1.66886	1.34178	1.17147	1.25	1.65219	2.49723	1.76371
2.6	1.01529	1.03740	1.07440	0.76	1.71039	1.34178	1.17393	1.26	1.66388	2.50804	1.76976
2.7	1.01623	1.07447	1.11147	0.77	1.75332	1.34178	1.17639	1.27	1.67567	2.51895	1.77581
2.8	1.01719	1.11154	1.14854	0.78	1.80765	1.34178	1.17885	1.28	1.68756	2.52996	1.78186
2.9	1.01817	1.14861	1.18561	0.79	1.86338	1.34178	1.18131	1.29	1.69955	2.54107	1.78791
3.0	1.01917	1.18568	1.22268	0.80	1.92051	1.34178	1.18377	1.30	1.71164	2.55228	1.79396
3.1	1.02019	1.22275	1.25975	0.81	1.97904	1.34178	1.18623	1.31	1.72383	2.56359	1.79999
3.2	1.02123	1.25982	1.29682	0.82	2.03897	1.34178	1.18869	1.32	1.73612	2.57490	1.80602
3.3	1.02229	1.29689	1.33389	0.83	2.09930	1.34178	1.19115	1.33	1.74851	2.58631	1.81205
3.4	1.02337	1.33396	1.37096	0.84	2.16103	1.34178	1.19361	1.34	1.76100	2.59782	1.81808
3.5	1.02447	1.37103	1.40803	0.85	2.22416	1.34178	1.19607	1.35	1.77359	2.60943	1.82411
3.6	1.02559	1.40810	1.44510	0.86	2.28869	1.34178	1.19853	1.36	1.78628	2.62114	1.83014
3.7	1.02673	1.44517	1.48217	0.87	2.35462	1.34178	1.20100	1.37	1.79907	2.63295	1.83617
3.8	1.02789	1.48224	1.51924	0.88	2.42195	1.34178	1.20346	1.38	1.81196	2.64486	1.84220
3.9	1.02907	1.51931	1.55631	0.89	2.49068	1.34178	1.20592	1.39	1.82495	2.65687	1.84823
4.0	1.03027	1.55638	1.59338	0.90	2.56081	1.34178	1.20838	1.40	1.83804	2.66898	1.85426
4.1	1.03149	1.59345	1.63045	0.91	2.63234	1.34178	1.21084	1.41	1.85123	2.68119	1.86029
4.2	1.03273	1.63052	1.66752	0.92	2.70527	1.34178	1.21330	1.42	1.86452	2.69350	1.86632
4.3	1.03399	1.66759	1.70459	0.93	2.77960	1.34178	1.21576	1.43	1.87791	2.70591	1.87235
4.4	1.03527	1.70466	1.74166	0.94	2.85533	1.34178	1.21822	1.44	1.89142	2.71842	1.87838
4.5	1.03657	1.74173	1.77873	0.95	2.93246	1.34178	1.22068	1.45	1.90503	2.73103	1.88441
4.6	1.03789	1.77880	1.81580	0.96	3.01099	1.34178	1.22314	1.46	1.91874	2.74374	1.89044
4.7	1.03923	1.81587	1.85287	0.97	3.09092	1.34178	1.22560	1.47	1.93255	2.75655	1.89647
4.8	1.04059	1.85294	1.88994	0.98	3.17225	1.34178	1.22806	1.48	1.94646	2.76946	1.90250
4.9	1.04197	1.88999	1.92701	0.99	3.25498	1.34178	1.23052	1.49	1.96047	2.78247	1.90853
5.0	1.04337	1.92706	1.96406	1.00	3.33911	1.34178	1.23298	1.50	1.97458	2.79558	1.91456

TABLE 3A. Lanchester-Clifford-Schlafli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and $T_{\alpha}(x)$ for $\alpha = 2/3$ and x from 0.00 to 1.50.

$\alpha = 2/3$

x	$F_{2/3}(x)$	$H_{1/3}(x)$	$T_{2/3}(x)$	x	$F_{2/3}(x)$	$H_{1/3}(x)$	$T_{2/3}(x)$	x	$F_{2/3}(x)$	$H_{1/3}(x)$	$T_{2/3}(x)$
1.50	1.99654	3.65444	1.83039	2.0	3.01025	5.78325	1.92118	6.0	129.97145	257.12820	1.97836
1.51	2.01209	3.68842	1.83113	2.1	3.28205	6.83842	1.93124	6.1	157.21179	258.32268	1.97835
1.52	2.02764	3.72298	1.83187	2.2	3.55316	7.91703	1.94130	6.2	185.45230	259.52530	1.97834
1.53	2.05595	3.75711	1.83405	2.3	3.82427	9.05520	1.95136	6.3	213.69293	260.72792	1.97833
1.54	2.08426	3.79124	1.83622	2.4	4.09538	10.20099	1.96142	6.4	241.93356	261.93054	1.97832
1.55	2.11257	3.82537	1.83839	2.5	4.36649	11.35325	1.97148	6.5	270.17419	263.13316	1.97831
1.56	2.14088	3.85950	1.84056	2.6	4.63760	12.50600	1.98154	6.6	298.41482	264.33578	1.97830
1.57	2.16919	3.89363	1.84273	2.7	4.90871	13.65875	1.99160	6.7	326.65545	265.53840	1.97829
1.58	2.19750	3.92776	1.84490	2.8	5.17982	14.81150	2.00166	6.8	354.89602	266.74102	1.97828
1.59	2.22581	3.96189	1.84707	2.9	5.45093	15.96425	2.01172	6.9	383.13659	267.94364	1.97827
1.60	2.25412	4.00000	1.84924	3.0	5.72204	17.11700	2.02178	7.0	411.37716	269.14626	1.97826
1.61	2.28243	4.03811	1.85141	3.1	6.00000	18.26975	2.03184	7.1	439.61773	270.34888	1.97825
1.62	2.31074	4.07622	1.85358	3.2	6.27800	19.42250	2.04190	7.2	467.85830	271.55150	1.97824
1.63	2.33905	4.11433	1.85575	3.3	6.55600	20.57525	2.05196	7.3	496.09887	272.75412	1.97823
1.64	2.36736	4.15244	1.85792	3.4	6.83400	21.72800	2.06202	7.4	524.33944	273.95674	1.97822
1.65	2.39567	4.19055	1.86009	3.5	7.11200	22.88075	2.07208	7.5	552.57996	275.15936	1.97821
1.66	2.42398	4.22866	1.86226	3.6	7.39000	24.03350	2.08214	7.6	580.82053	276.36198	1.97820
1.67	2.45229	4.26677	1.86443	3.7	7.66800	25.18625	2.09220	7.7	609.06110	277.56460	1.97819
1.68	2.48060	4.30488	1.86660	3.8	7.94600	26.33900	2.10226	7.8	637.30167	278.76722	1.97818
1.69	2.50891	4.34299	1.86877	3.9	8.22400	27.49175	2.11232	7.9	665.54224	279.96984	1.97817
1.70	2.53722	4.38110	1.87094	4.0	8.50200	28.64450	2.12238	8.0	693.78281	281.17246	1.97816
1.71	2.56553	4.41921	1.87311	4.1	8.78000	29.79725	2.13244	8.1	722.02338	282.37508	1.97815
1.72	2.59384	4.45732	1.87528	4.2	9.05800	30.95000	2.14250	8.2	750.26395	283.57770	1.97814
1.73	2.62215	4.49543	1.87745	4.3	9.33600	32.10275	2.15256	8.3	778.50452	284.78032	1.97813
1.74	2.65046	4.53354	1.87962	4.4	9.61400	33.25550	2.16262	8.4	806.74509	285.98294	1.97812
1.75	2.67877	4.57165	1.88179	4.5	9.89200	34.40825	2.17268	8.5	834.98566	287.18556	1.97811
1.76	2.70708	4.60976	1.88396	4.6	10.17000	35.56100	2.18274	8.6	863.22623	288.38818	1.97810
1.77	2.73539	4.64787	1.88613	4.7	10.44800	36.71375	2.19280	8.7	891.46680	289.59080	1.97809
1.78	2.76370	4.68598	1.88830	4.8	10.72600	37.86650	2.20286	8.8	919.70737	290.79342	1.97808
1.79	2.79201	4.72409	1.89047	4.9	11.00400	39.01925	2.21292	8.9	947.94794	291.99604	1.97807
1.80	2.82032	4.76220	1.89264	5.0	11.28200	40.17200	2.22298	9.0	976.18851	293.19866	1.97806
1.81	2.84863	4.80031	1.89481	5.1	11.56000	41.32475	2.23304	9.1	1004.42908	294.40128	1.97805
1.82	2.87694	4.83842	1.89698	5.2	11.83800	42.47750	2.24310	9.2	1032.66965	295.60390	1.97804
1.83	2.90525	4.87653	1.89915	5.3	12.11600	43.63025	2.25316	9.3	1060.91022	296.80652	1.97803
1.84	2.93356	4.91464	1.90132	5.4	12.39400	44.78300	2.26322	9.4	1089.15079	298.00914	1.97802
1.85	2.96187	4.95275	1.90349	5.5	12.67200	45.93575	2.27328	9.5	1117.39136	299.21176	1.97801
1.86	2.99018	4.99086	1.90566	5.6	12.95000	47.08850	2.28334	9.6	1145.63193	300.41438	1.97800
1.87	3.01849	5.02897	1.90783	5.7	13.22800	48.24125	2.29340	9.7	1173.87250	301.61700	1.97799
1.88	3.04680	5.06708	1.90999	5.8	13.50600	49.39400	2.30346	9.8	1202.11307	302.81962	1.97798
1.89	3.07511	5.10519	1.91216	5.9	13.78400	50.54675	2.31352	9.9	1230.35364	304.02224	1.97797
1.90	3.10342	5.14330	1.91433	6.0	14.06200	51.69950	2.32358	10.0	1258.59421	305.22486	1.97796
1.91	3.13173	5.18141	1.91650								
1.92	3.16004	5.21952	1.91867								
1.93	3.18835	5.25763	1.92084								
1.94	3.21666	5.29574	1.92301								
1.95	3.24497	5.33385	1.92518								
1.96	3.27328	5.37196	1.92735								
1.97	3.30159	5.41007	1.92952								
1.98	3.32990	5.44818	1.93169								
1.99	3.35821	5.48629	1.93386								
2.00	3.38652	5.52440	1.93603								

TABLE 3B. Lanchester-Clifford-Schlafli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and $T_{\alpha}(x)$ for $\alpha = 2/3$ and x from 1.50 to 10.0.

x	$F_{1/4}(x)$	$H_{3/4}(x)$	$T_{1/4}(x)$	x	$F_{1/4}(x)$	$H_{3/4}(x)$	$T_{1/4}(x)$	x	$F_{1/4}(x)$	$H_{3/4}(x)$	$T_{1/4}(x)$
0.0	1.00000	0.00047	0.00047	0.50	1.25031	0.17269	0.13746	1.00	2.10378	0.54188	0.35757
0.01	1.00040	0.00047	0.00047	0.51	1.25079	0.17313	0.13791	1.01	2.11287	0.54199	0.35761
0.02	1.00080	0.00045	0.00045	0.52	1.25126	0.17359	0.13837	1.02	2.12200	0.54212	0.35765
0.03	1.00120	0.00045	0.00045	0.53	1.25173	0.17405	0.13883	1.03	2.13117	0.54225	0.35769
0.04	1.00160	0.00045	0.00045	0.54	1.25220	0.17451	0.13929	1.04	2.14037	0.54238	0.35773
0.05	1.00200	0.00047	0.00047	0.55	1.31175	0.20071	0.15301	1.05	2.22912	0.59118	0.36521
0.06	1.00250	0.00053	0.00053	0.56	1.33358	0.20653	0.15605	1.06	2.35522	0.60136	0.36665
0.07	1.00300	0.00069	0.00069	0.57	1.34887	0.21242	0.15905	1.07	2.52166	0.61165	0.36809
0.08	1.00360	0.00087	0.00087	0.58	1.36037	0.21839	0.16203	1.08	2.73581	0.62203	0.36953
0.09	1.00411	0.00127	0.00127	0.59	1.37143	0.22443	0.16498	1.09	3.00000	0.63256	0.37098
0.10	1.00463	0.00178	0.00178	0.60	1.38214	0.23054	0.16789	1.10	3.31313	0.64318	0.37242
0.11	1.00516	0.00224	0.00224	0.61	1.39269	0.23673	0.17078	1.11	3.67340	0.65391	0.37386
0.12	1.00570	0.00274	0.00274	0.62	1.40309	0.24299	0.17366	1.12	4.08194	0.66475	0.37530
0.13	1.00623	0.00324	0.00324	0.63	1.41339	0.24933	0.17654	1.13	4.53885	0.67572	0.37674
0.14	1.00677	0.00376	0.00376	0.64	1.42363	0.25575	0.17927	1.14	5.05499	0.68679	0.37819
0.15	1.00731	0.00427	0.00427	0.65	1.44363	0.26220	0.18203	1.15	5.63129	0.69799	0.37963
0.16	1.00785	0.00477	0.00477	0.66	1.45438	0.26880	0.18476	1.16	6.26885	0.70930	0.38107
0.17	1.00839	0.00528	0.00528	0.67	1.46599	0.27555	0.18749	1.17	6.96854	0.72061	0.38251
0.18	1.00893	0.00581	0.00581	0.68	1.47815	0.28217	0.19012	1.18	7.73127	0.73204	0.38395
0.19	1.00948	0.00634	0.00634	0.69	1.49117	0.28897	0.19275	1.19	8.56800	0.74357	0.38539
0.20	1.01003	0.00687	0.00687	0.70	1.51445	0.29584	0.19535	1.20	9.48173	0.75517	0.38683
0.21	1.01058	0.00741	0.00741	0.71	1.52880	0.30280	0.19793	1.21	10.47442	0.76670	0.38827
0.22	1.01113	0.00795	0.00795	0.72	1.54380	0.30984	0.20044	1.22	11.54800	0.77823	0.38971
0.23	1.01168	0.00849	0.00849	0.73	1.55920	0.31695	0.20293	1.23	12.70459	0.78975	0.39115
0.24	1.01223	0.00903	0.00903	0.74	1.57520	0.32415	0.20539	1.24	13.94600	0.80127	0.39259
0.25	1.01278	0.00957	0.00957	0.75	1.59181	0.33143	0.20782	1.25	15.27400	0.81279	0.39403
0.26	1.01333	0.01011	0.01011	0.76	1.61168	0.33879	0.21021	1.26	16.69042	0.82432	0.39547
0.27	1.01388	0.01065	0.01065	0.77	1.62883	0.34623	0.21256	1.27	18.19700	0.83585	0.39691
0.28	1.01443	0.01119	0.01119	0.78	1.64826	0.35379	0.21488	1.28	20.00000	0.84737	0.39835
0.29	1.01498	0.01173	0.01173	0.79	1.66956	0.36137	0.21717	1.29	22.00000	0.85889	0.39979
0.30	1.01553	0.01227	0.01227	0.80	1.68194	0.36906	0.21942	1.30	24.20000	0.87041	0.40123
0.31	1.01608	0.01281	0.01281	0.81	1.70271	0.37684	0.22162	1.31	26.60000	0.88193	0.40267
0.32	1.01663	0.01335	0.01335	0.82	1.71375	0.38470	0.22383	1.32	29.20000	0.89345	0.40411
0.33	1.01718	0.01389	0.01389	0.83	1.73559	0.39266	0.22598	1.33	32.00000	0.90497	0.40555
0.34	1.01773	0.01443	0.01443	0.84	1.75671	0.40070	0.22809	1.34	35.00000	0.91649	0.40699
0.35	1.01828	0.01497	0.01497	0.85	1.77712	0.40882	0.23018	1.35	38.20000	0.92801	0.40843
0.36	1.01883	0.01551	0.01551	0.86	1.79582	0.41704	0.23223	1.36	41.60000	0.93953	0.40987
0.37	1.01938	0.01605	0.01605	0.87	1.81182	0.42535	0.23425	1.37	45.20000	0.95105	0.41131
0.38	1.01993	0.01659	0.01659	0.88	1.82612	0.43374	0.23623	1.38	49.00000	0.96257	0.41275
0.39	1.02048	0.01713	0.01713	0.89	1.83947	0.44223	0.23818	1.39	53.00000	0.97409	0.41419
0.40	1.02103	0.01767	0.01767	0.90	1.85671	0.45081	0.24010	1.40	57.20000	0.98561	0.41563
0.41	1.02158	0.01821	0.01821	0.91	1.87741	0.45949	0.24199	1.41	61.60000	0.99713	0.41707
0.42	1.02213	0.01875	0.01875	0.92	1.89981	0.46825	0.24384	1.42	66.20000	1.00865	0.41851
0.43	1.02268	0.01929	0.01929	0.93	1.92392	0.47712	0.24566	1.43	71.00000	1.02017	0.41995
0.44	1.02323	0.01983	0.01983	0.94	1.94144	0.48607	0.24746	1.44	76.00000	1.03169	0.42139
0.45	1.02378	0.02037	0.02037	0.95	1.96427	0.49513	0.24923	1.45	81.20000	1.04321	0.42283
0.46	1.02433	0.02091	0.02091	0.96	1.98672	0.50428	0.25095	1.46	86.60000	1.05473	0.42427
0.47	1.02488	0.02145	0.02145	0.97	2.00949	0.51353	0.25265	1.47	92.20000	1.06625	0.42571
0.48	1.02543	0.02199	0.02199	0.98	2.03257	0.52288	0.25436	1.48	98.00000	1.07777	0.42715
0.49	1.02598	0.02253	0.02253	0.99	2.05691	0.53233	0.25606	1.49	104.00000	1.08929	0.42859
0.50	1.02653	0.02307	0.02307	1.00	2.10378	0.54188	0.25757	1.50	110.00000	1.10081	0.43003

TABLE 4A. Lanchester-Clifford-Schlafli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and

$T_{\alpha}(x)$ for $\alpha = 1/4$ and x from 0.00 to 1.50.

$\alpha = 1/4$

x	$F_{1/4}(x)$	$H_{3/4}(x)$	$T_{1/4}(x)$	x	$F_{1/4}(x)$	$H_{3/4}(x)$	$T_{1/4}(x)$	x	$F_{1/4}(x)$	$H_{3/4}(x)$	$T_{1/4}(x)$
1.50	3.80031	1.17433	0.30901	2.0	85616	2.2675	0.32770	6.0	527.67626	178.36720	0.33799
1.51	3.84587	1.19090	0.30900	2.1	770055	2.59335	0.32962	6.1	585.89355	198.10419	0.33799
1.52	3.89196	1.20722	0.31018	2.2	8.64388	2.82267	0.33118	6.2	650.47779	219.88313	0.33799
1.53	3.93859	1.22333	0.31095	2.3	9.69669	3.05243	0.33248	6.3	722.12168	244.08805	0.33799
1.54	3.98577	1.24001	0.31131	2.4	10.86991	3.28473	0.33348	6.4	801.59208	270.92829	0.33799
1.55	4.03350	1.25788	0.31186	2.5	12.17756	4.07113	0.33431	6.5	889.73967	300.72132	0.33799
1.56	4.08179	1.27612	0.31259	2.6	13.63512	4.56771	0.33500	6.6	987.50627	333.76568	0.33799
1.57	4.13065	1.29479	0.31322	2.7	15.25855	5.17007	0.33555	6.7	1095.53811	370.41439	0.33799
1.58	4.18007	1.31391	0.31394	2.8	17.06686	5.71448	0.33600	6.8	1316.54733	411.08677	0.33799
1.59	4.23007	1.33347	0.31461	2.9	19.07988	6.44786	0.33637	6.9	1549.54844	456.13200	0.33799
1.60	4.28056	1.35349	0.31530	3.0	21.32051	7.17792	0.33667	7.0	1497.43105	506.11478	0.33799
1.61	4.33182	1.37394	0.31601	3.1	23.81335	8.03118	0.33691	7.1	1661.41336	561.53928	0.33799
1.62	4.38359	1.39481	0.31673	3.2	26.58819	8.99313	0.33711	7.2	1844.24219	622.99529	0.33799
1.63	4.43594	1.41618	0.31746	3.3	29.67449	10.08288	0.33727	7.3	2044.84923	691.13633	0.33799
1.64	4.48890	1.43805	0.31824	3.4	33.10675	11.17032	0.33740	7.4	2268.37739	766.68645	0.33799
1.65	4.54248	1.46048	0.31903	3.5	36.92382	12.46219	0.33751	7.5	2516.20022	850.44792	0.33799
1.66	4.59667	1.48346	0.31983	3.6	41.16800	13.89826	0.33760	7.6	2790.54750	943.30954	0.33799
1.67	4.65149	1.50694	0.32063	3.7	45.88641	15.49447	0.33767	7.7	3095.73245	1046.23608	0.33799
1.68	4.70694	1.53162	0.32146	3.8	51.06088	17.26852	0.33773	7.8	3437.47605	1160.23842	0.33799
1.69	4.76302	1.55672	0.32233	3.9	56.80088	19.23004	0.33778	7.9	3817.47605	1286.88542	0.33799
1.70	4.81975	1.58232	0.32326	4.0	63.43377	21.43078	0.33782	8.0	4222.37283	1427.11584	0.33799
1.71	4.87713	1.60849	0.32424	4.1	70.78387	23.88490	0.33785	8.1	4682.26100	1582.55306	0.33799
1.72	4.93516	1.63525	0.32527	4.2	78.63660	26.59136	0.33787	8.2	5192.00219	1754.84026	0.33799
1.73	4.99386	1.66263	0.32636	4.3	87.52552	29.57336	0.33789	8.3	5756.98374	1945.79769	0.33799
1.74	5.05322	1.69066	0.32750	4.4	97.39340	32.91036	0.33791	8.4	6383.16955	2157.44170	0.33799
1.75	5.11327	1.71934	0.32868	4.5	108.35735	36.61674	0.33793	8.5	7077.16880	2392.00581	0.33799
1.76	5.17400	1.74878	0.32989	4.6	120.35320	40.66744	0.33794	8.6	7846.30050	2651.46407	0.33799
1.77	5.23533	1.77906	0.33114	4.7	134.05421	45.04200	0.33795	8.7	8698.57332	2929.03970	0.33799
1.78	5.29830	1.81091	0.33243	4.8	149.77468	50.06008	0.33795	8.8	9648.03241	3230.91570	0.33799
1.79	5.36303	1.84401	0.33376	4.9	167.74688	56.01595	0.33796	8.9	10800.03241	3573.11455	0.33799
1.80	5.42989	1.87834	0.33513	5.0	184.25950	62.21311	0.33797	9.0	11849.98315	4005.16529	0.33799
1.81	5.49814	1.91394	0.33654	5.1	204.80949	69.21950	0.33797	9.1	13135.32344	4439.59636	0.33799
1.82	5.56842	1.95181	0.33799	5.2	227.62277	76.93050	0.33797	9.2	14559.56902	4920.97585	0.33799
1.83	5.64084	1.99196	0.33946	5.3	252.94453	85.48954	0.33798	9.3	16137.68846	5454.36306	0.33799
1.84	5.71530	1.93358	0.34094	5.4	281.05178	94.98954	0.33798	9.4	17886.26020	6045.36129	0.33799
1.85	5.79251	1.97684	0.34243	5.5	312.24435	105.53289	0.33798	9.5	19823.64432	6700.17618	0.33799
1.86	5.87261	2.02196	0.34393	5.6	346.86501	117.23353	0.33798	9.6	21970.17253	7423.68938	0.33799
1.87	5.95561	2.06949	0.34544	5.7	385.27813	130.21764	0.33798	9.7	24368.17267	8220.48908	0.33799
1.88	6.04161	2.11944	0.34696	5.8	427.62012	144.63111	0.33799	9.8	26902.19653	9106.01719	0.33799
1.89	6.13061	2.17177	0.34850	5.9	475.20112	160.61101	0.33799	9.9	29602.19653	10166.01719	0.33799
1.90	6.22261	2.22646	0.35006	6.0	527.67626	178.36720	0.33799	10.0	33136.02562	11199.61611	0.33799

TABLE 4B. Lanchester-Clifford-Schlafli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and $T_{\alpha}(x)$ for $\alpha = 1/4$ and x from 1.50 to 10.0.

x	$F_{3/4}(x)$	$H_{1/4}(x)$	$T_{3/4}(x)$	x	$F_{3/4}(x)$	$H_{1/4}(x)$	$T_{3/4}(x)$	x	$F_{3/4}(x)$	$H_{1/4}(x)$	$T_{3/4}(x)$
0.0	1.00000	0.0	0.0	0.50	1.08493	2.10140	1.93707	1.00	1.35788	3.2636	2.53323
0.01	1.00003	0.28255	0.28254	0.51	1.08322	2.12650	1.93393	1.01	1.36559	3.27093	2.53693
0.02	1.00013	0.40006	0.40006	0.52	1.08093	2.15158	1.91051	1.02	1.37330	3.27824	2.54064
0.03	1.00033	0.51854	0.51854	0.53	1.07823	2.17663	1.88683	1.03	1.38101	3.28555	2.54435
0.04	1.00053	0.58587	0.58587	0.54	1.07553	2.20168	2.00288	1.04	1.38892	3.29286	2.54806
0.05	1.00083	0.63217	0.63217	0.55	1.10303	2.22673	2.01866	1.05	1.39743	3.30017	2.55177
0.06	1.00120	0.69332	0.69299	0.56	1.11090	2.25178	2.03423	1.06	1.40554	3.30748	2.55548
0.07	1.00163	0.74907	0.74907	0.57	1.11884	2.27672	2.04953	1.07	1.41365	3.31479	2.55919
0.08	1.00213	0.80113	0.79932	0.58	1.11886	2.30177	2.06459	1.08	1.42176	3.32210	2.56290
0.09	1.00270	0.84990	0.84761	0.59	1.11189	2.32676	2.07942	1.09	1.42987	3.32941	2.56661
0.10	1.00334	0.89622	0.89334	0.60	1.12312	2.35182	2.09401	1.10	1.43798	3.33672	2.57032
0.11	1.00404	0.93635	0.93635	0.61	1.12317	2.37690	2.10833	1.11	1.44609	3.34403	2.57403
0.12	1.00480	0.97072	0.97172	0.62	1.13169	2.40202	2.12250	1.12	1.45420	3.35134	2.57774
0.13	1.00554	1.00225	1.00555	0.63	1.13650	2.42717	2.13661	1.13	1.46231	3.35865	2.58145
0.14	1.00634	1.06254	1.05555	0.64	1.14144	2.45231	2.15072	1.14	1.47042	3.36596	2.58516
0.15	1.00751	1.10038	1.09213	0.65	1.14514	2.47741	2.16483	1.15	1.47853	3.37327	2.58887
0.16	1.00855	1.13717	1.12713	0.66	1.14778	2.50251	2.17894	1.16	1.48664	3.38058	2.59258
0.17	1.00965	1.17294	1.16113	0.67	1.15042	2.52761	2.19305	1.17	1.49475	3.38789	2.59629
0.18	1.01083	1.20719	1.19446	0.68	1.15306	2.55271	2.20716	1.18	1.50286	3.39520	2.60000
0.19	1.01206	1.24110	1.22700	0.69	1.15570	2.57781	2.22127	1.19	1.51097	3.40251	2.60371
0.20	1.01337	1.27555	1.25823	0.70	1.15834	2.60291	2.23538	1.20	1.51908	3.40982	2.60742
0.21	1.01475	1.30761	1.28881	0.71	1.16144	2.62801	2.24949	1.21	1.52719	3.41713	2.61113
0.22	1.01619	1.33933	1.31952	0.72	1.16454	2.65311	2.26360	1.22	1.53530	3.42444	2.61484
0.23	1.01769	1.37085	1.35024	0.73	1.16764	2.67821	2.27771	1.23	1.54341	3.43175	2.61855
0.24	1.01928	1.40195	1.38154	0.74	1.17074	2.70331	2.29182	1.24	1.55152	3.43906	2.62226
0.25	1.02093	1.43195	1.40260	0.75	1.17384	2.72841	2.30593	1.25	1.55963	3.44637	2.62597
0.26	1.02264	1.46119	1.42953	0.76	1.17694	2.75351	2.32004	1.26	1.56774	3.45368	2.62968
0.27	1.02443	1.48911	1.45555	0.77	1.20062	2.77861	2.33415	1.27	1.57585	3.46099	2.63339
0.28	1.02628	1.52033	1.48110	0.78	1.21178	2.80371	2.34826	1.28	1.58396	3.46830	2.63710
0.29	1.02820	1.54889	1.50641	0.79	1.21148	2.82881	2.36237	1.29	1.59207	3.47561	2.64081
0.30	1.03019	1.57722	1.53099	0.80	1.22228	2.85391	2.37648	1.30	1.60018	3.48292	2.64452
0.31	1.03225	1.60535	1.55507	0.81	1.22196	2.87901	2.39059	1.31	1.60829	3.49023	2.64823
0.32	1.03438	1.63298	1.57915	0.82	1.23117	2.90411	2.40470	1.32	1.61640	3.49754	2.65194
0.33	1.03659	1.66072	1.60323	0.83	1.23085	2.92921	2.41881	1.33	1.62451	3.50485	2.65565
0.34	1.03885	1.68872	1.62740	0.84	1.24431	2.95431	2.43292	1.34	1.63262	3.51216	2.65936
0.35	1.04119	1.71460	1.65176	0.85	1.25355	2.97941	2.44703	1.35	1.64073	3.51947	2.66307
0.36	1.04360	1.74136	1.67681	0.86	1.25885	3.00451	2.46114	1.36	1.64884	3.52678	2.66678
0.37	1.04608	1.76733	1.69005	0.87	1.26626	3.02961	2.47525	1.37	1.65695	3.53409	2.67049
0.38	1.04863	1.79442	1.71110	0.88	1.27734	3.05471	2.48936	1.38	1.66506	3.54140	2.67420
0.39	1.05125	1.82034	1.73118	0.89	1.27734	3.11003	2.50347	1.39	1.67317	3.54871	2.67791
0.40	1.05395	1.84661	1.75209	0.90	1.28001	3.13513	2.51758	1.40	1.68128	3.55602	2.68162
0.41	1.05671	1.87294	1.77294	0.91	1.28278	3.16023	2.53169	1.41	1.68939	3.56333	2.68533
0.42	1.05952	1.90025	1.79385	0.92	1.28278	3.18533	2.54580	1.42	1.69750	3.57064	2.68904
0.43	1.06235	1.92860	1.81476	0.93	1.29098	3.21043	2.55991	1.43	1.70561	3.57795	2.69275
0.44	1.06543	1.95990	1.83567	0.94	1.31163	3.23553	2.57402	1.44	1.71372	3.58526	2.69646
0.45	1.06848	1.97508	1.84849	0.95	1.32076	3.27995	2.58813	1.45	1.72183	3.59257	2.70017
0.46	1.07161	2.00058	1.86680	0.96	1.32300	3.30886	2.60224	1.46	1.73004	3.60008	2.70388
0.47	1.07480	2.02500	1.88441	0.97	1.33332	3.33796	2.61635	1.47	1.73815	3.60739	2.70759
0.48	1.07807	2.05115	1.90222	0.98	1.34374	3.36724	2.63046	1.48	1.74626	3.61470	2.71130
0.49	1.08142	2.07625	1.91934	0.99	1.35026	3.39670	2.64457	1.49	1.75437	3.62201	2.71501
0.50	1.08483	2.10140	1.93707	1.00	1.35788	3.42636	2.65868	1.50	1.76248	3.62932	2.71872

TABLE 5A. Lanchester-Clifford-Schlafli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and $T_{3/4}(x)$ for $\alpha = 3/4$ and x from 0.00 to 1.50.

$\alpha = 3/4$

x	$F_{3/4}(x)$	$H_{1/4}(x)$	$T_{3/4}(x)$	\times	$F_{3/4}(x)$	$H_{1/4}(x)$	$T_{3/4}(x)$	\times	$F_{3/4}(x)$	$H_{1/4}(x)$	$T_{3/4}(x)$
1.50	1.87907	5.22942	2.78299	2.0	2.76367	7.98850	2.89054	6.0	107.80972	318.97126	2.95865
1.51	1.89270	5.27350	2.78623	2.1	2.79970	8.70654	2.90247	6.1	118.61917	320.95316	2.95865
1.52	1.90648	5.31795	2.78941	2.2	3.25984	9.59380	2.91235	6.2	130.52272	326.17215	2.95866
1.53	1.92040	5.36279	2.79254	2.3	3.54634	10.55732	2.92052	6.3	143.63175	336.25772	2.95866
1.54	1.93446	5.40801	2.79561	2.4	3.86190	11.61690	2.92727	6.4	167.60900	347.63705	2.95866
1.55	1.94868	5.45363	2.79863	2.5	4.20915	12.36477	2.93284	6.5	173.96977	354.71843	2.95867
1.56	1.96307	5.49967	2.80190	2.6	4.59124	13.24003	2.93743	6.6	191.48319	363.43511	2.95867
1.57	1.97752	5.54634	2.80537	2.7	5.01157	14.14609	2.94121	6.7	210.77365	373.60946	2.95867
1.58	1.99204	5.59389	2.80891	2.8	5.47189	15.11690	2.94433	6.8	232.02236	386.77762	2.95867
1.59	2.00704	5.64213	2.81218	2.9	5.98232	17.62923	2.94689	6.9	255.42908	407.75306	2.95867
1.60	2.02201	5.68778	2.81594	3.0	6.54143	19.29064	2.94900	7.0	281.21402	432.01997	2.95867
1.61	2.03713	5.73585	2.81965	3.1	7.15022	21.16077	2.95073	7.1	309.61993	456.06393	2.95867
1.62	2.05242	5.78334	2.82331	3.2	7.81223	23.12194	2.95215	7.2	340.91444	480.5430	2.95867
1.63	2.06780	5.83202	2.82692	3.3	8.53555	25.16918	2.95332	7.3	375.39259	506.40502	2.95867
1.64	2.08336	5.88261	2.83049	3.4	9.3287	27.4918	2.95428	7.4	413.37966	533.6550	2.95867
1.65	2.09922	5.93441	2.83401	3.5	10.29158	30.43235	2.95507	7.5	455.23428	563.8978	2.95867
1.66	2.11539	5.98747	2.83751	3.6	11.27981	33.55859	2.95572	7.6	501.55184	596.3670	2.95867
1.67	2.13173	6.04173	2.84102	3.7	12.36654	36.95876	2.95625	7.7	552.16888	631.8608	2.95867
1.68	2.14824	6.09725	2.84453	3.8	13.56162	40.69746	2.95669	7.8	608.16425	669.36002	2.95867
1.69	2.16481	6.15403	2.84805	3.9	14.87192	44.89876	2.95705	7.9	669.86914	719.12656	2.95867
1.70	2.18147	6.21208	2.85158	4.0	16.32142	48.56796	2.95734	8.0	737.86911	783.3661	2.95867
1.71	2.19823	6.27139	2.85512	4.1	17.91130	52.77409	2.95758	8.1	812.80610	844.3066	2.95867
1.72	2.21509	6.33199	2.85868	4.2	19.66009	58.5016	2.95778	8.2	895.39501	903.17676	2.95867
1.73	2.23205	6.39480	2.86223	4.3	21.58379	63.84353	2.95794	8.3	986.71951	974.47093	2.95867
1.74	2.24911	6.45983	2.86578	4.4	23.70002	70.10637	2.95807	8.4	1086.72611	1059.26927	2.95867
1.75	2.26628	6.52700	2.86933	4.5	26.02321	76.99614	2.95818	8.5	1197.28949	1152.39043	2.95867
1.76	2.28355	6.59535	2.87288	4.6	28.58373	84.57615	2.95827	8.6	1319.15923	1254.42711	2.95867
1.77	2.30092	6.66480	2.87643	4.7	31.40116	92.91611	2.95834	8.7	1453.47287	1366.35385	2.95868
1.78	2.31839	6.73530	2.87998	4.8	34.50455	102.09286	2.95840	8.8	1601.52502	1478.40392	2.95868
1.79	2.33596	6.80678	2.88353	4.9	37.92220	112.19102	2.95845	8.9	1764.72967	1591.26163	2.95868
1.80	2.35363	6.87925	2.88708	5.0	41.67192	123.30382	2.95849	9.0	1944.62868	1733.2437	2.95868
1.81	2.37139	6.95272	2.89063	5.1	45.81133	135.53399	2.95853	9.1	2142.93973	1894.06235	2.95868
1.82	2.38925	7.02719	2.89418	5.2	50.36069	148.99473	2.95855	9.2	2361.53528	2077.06735	2.95868
1.83	2.40720	7.10266	2.89773	5.3	55.36813	163.81073	2.95857	9.3	2602.23703	2284.18648	2.95868
1.84	2.42524	7.17913	2.90128	5.4	60.88010	180.11942	2.95859	9.4	2868.23703	2516.1948	2.95868
1.85	2.44337	7.25660	2.90483	5.5	66.94778	198.07221	2.95861	9.5	3161.14265	2782.79405	2.95868
1.86	2.46159	7.33507	2.90838	5.6	73.7256	217.35597	2.95862	9.6	3484.06564	3080.1826	2.95868
1.87	2.47981	7.41454	2.91193	5.7	81.3916	239.59457	2.95863	9.7	3840.09044	3408.97997	2.95868
1.88	2.49803	7.49501	2.91548	5.8	89.9837	263.55064	2.95864	9.8	4232.61910	3772.94477	2.95868
1.89	2.51625	7.57648	2.91903	5.9	99.59335	289.92750	2.95866	9.9	4665.40409	4180.34194	2.95868
1.90	2.53447	7.65895	2.92258	6.0	107.80972	318.97126	2.95865	10.0	5142.58456	4615.23636	2.95868
1.91	2.55269	7.74242	2.92613								
1.92	2.57091	7.82689	2.92968								
1.93	2.58913	7.91236	2.93323								
1.94	2.60735	8.00000	2.93678								
1.95	2.62557	8.08877	2.94033								
1.96	2.64379	8.17854	2.94388								
1.97	2.66191	8.26931	2.94743								
1.98	2.68003	8.36108	2.95098								
1.99	2.69815	8.45385	2.95453								
2.00	2.71627	8.54762	2.95808								

TABLE 5B. Lanchester-Clifford-Schlafli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and $T_{\alpha}(x)$ for $\alpha = 3/4$ and x from 1.50 to 10.0.

x	$F_{1/5}(x)$	$H_{4/5}(x)$	$T_{1/5}(x)$	x	$F_{1/5}(x)$	$H_{4/5}(x)$	$T_{1/5}(x)$	x	$F_{1/5}(x)$	$H_{4/5}(x)$	$T_{1/5}(x)$
0.0	1.00000	0.0	0.0	0.50	1.32072	0.14080	0.10661	1.00	2.38264	0.72223	0.19798
0.01	1.00013	0.00026	0.00026	0.51	1.33462	0.14553	0.10909	1.01	2.41396	0.73109	0.19913
0.02	1.00050	0.00079	0.00079	0.52	1.34762	0.15033	0.11156	1.02	2.44586	0.73990	0.20025
0.03	1.00113	0.00151	0.00151	0.53	1.36151	0.15521	0.11400	1.03	2.47869	0.74867	0.20136
0.04	1.00203	0.00239	0.00239	0.54	1.37559	0.16016	0.11642	1.04	2.51070	0.75742	0.20244
0.05	1.00313	0.00342	0.00341	0.55	1.39018	0.16519	0.11882	1.05	2.54315	0.76615	0.20350
0.06	1.00450	0.00458	0.00456	0.56	1.40536	0.17021	0.12119	1.06	2.57604	0.77484	0.20454
0.07	1.00613	0.00595	0.00592	0.57	1.42111	0.17523	0.12358	1.07	2.60937	0.78348	0.20556
0.08	1.00801	0.00756	0.00750	0.58	1.43742	0.18023	0.12596	1.08	2.64315	0.79207	0.20656
0.09	1.01013	0.00946	0.00937	0.59	1.45411	0.18527	0.12830	1.09	2.67739	0.80059	0.20754
0.10	1.01251	0.01167	0.01160	0.60	1.47111	0.19035	0.13063	1.10	2.71209	0.80904	0.20850
0.11	1.01514	0.01418	0.01409	0.61	1.48841	0.19548	0.13287	1.11	2.74726	0.81742	0.20944
0.12	1.01803	0.01699	0.01689	0.62	1.50602	0.20063	0.13509	1.12	2.78289	0.82572	0.21036
0.13	1.02116	0.02012	0.02001	0.63	1.51995	0.20579	0.13709	1.13	2.81895	0.83395	0.21125
0.14	1.02455	0.02357	0.02345	0.64	1.53419	0.21095	0.13923	1.14	2.85552	0.84211	0.21215
0.15	1.02819	0.02734	0.02721	0.65	1.54874	0.21615	0.14136	1.15	2.89257	0.85019	0.21301
0.16	1.03209	0.03143	0.03129	0.66	1.56361	0.22138	0.14359	1.16	2.93010	0.85820	0.21386
0.17	1.03623	0.03585	0.03570	0.67	1.57880	0.22663	0.14578	1.17	2.96812	0.86614	0.21469
0.18	1.04059	0.04060	0.04044	0.68	1.59431	0.23189	0.14793	1.18	3.00664	0.87401	0.21551
0.19	1.04529	0.04567	0.04550	0.69	1.61018	0.23719	0.15005	1.19	3.04564	0.88181	0.21631
0.20	1.05028	0.05107	0.05089	0.70	1.62635	0.24252	0.15215	1.20	3.08515	0.88954	0.21709
0.21	1.05538	0.05680	0.05661	0.71	1.64285	0.24787	0.15420	1.21	3.12517	0.89720	0.21789
0.22	1.06061	0.06286	0.06266	0.72	1.65969	0.25324	0.15625	1.22	3.16570	0.90479	0.21860
0.23	1.06609	0.06925	0.06904	0.73	1.67688	0.25863	0.15825	1.23	3.20675	0.91230	0.21934
0.24	1.07174	0.07597	0.07575	0.74	1.69436	0.26404	0.16020	1.24	3.24832	0.91973	0.22005
0.25	1.07763	0.08302	0.08279	0.75	1.71214	0.26947	0.16211	1.25	3.29042	0.92708	0.22076
0.26	1.08379	0.09040	0.09016	0.76	1.73021	0.27492	0.16400	1.26	3.33305	0.93436	0.22145
0.27	1.09020	0.09812	0.09787	0.77	1.74858	0.28039	0.16587	1.27	3.37621	0.94157	0.22218
0.28	1.09688	0.10618	0.10592	0.78	1.76724	0.28587	0.16771	1.28	3.41992	0.94871	0.22286
0.29	1.10380	0.11457	0.11429	0.79	1.78620	0.29137	0.16951	1.29	3.46418	0.95579	0.22347
0.30	1.11096	0.12329	0.12300	0.80	1.80546	0.29689	0.17128	1.30	3.50900	0.96274	0.22407
0.31	1.11836	0.13243	0.13213	0.81	1.82501	0.30242	0.17301	1.31	3.55437	0.96962	0.22459
0.32	1.12601	0.14199	0.14168	0.82	1.84485	0.30797	0.17471	1.32	3.60030	0.97642	0.22509
0.33	1.13398	0.15196	0.15164	0.83	1.86498	0.31354	0.17638	1.33	3.64681	0.98314	0.22559
0.34	1.14225	0.16234	0.16201	0.84	1.88539	0.31912	0.17801	1.34	3.69389	0.98979	0.22607
0.35	1.15089	0.17312	0.17278	0.85	1.90608	0.32471	0.17959	1.35	3.74156	0.99636	0.22654
0.36	1.15989	0.18430	0.18395	0.86	1.92704	0.33031	0.18114	1.36	3.78981	0.10285	0.22704
0.37	1.16925	0.19587	0.19551	0.87	1.94826	0.33592	0.18271	1.37	3.83865	0.10926	0.22756
0.38	1.17897	0.20783	0.20746	0.88	1.96974	0.34154	0.18428	1.38	3.88809	0.11559	0.22808
0.39	1.18905	0.22018	0.21979	0.89	1.99148	0.34717	0.18578	1.39	3.93814	0.12184	0.22860
0.40	1.20035	0.23292	0.23252	0.90	2.01348	0.35281	0.18721	1.40	3.98880	0.12801	0.22912
0.41	1.21288	0.24604	0.24563	0.91	2.03574	0.35846	0.18858	1.41	4.04008	0.13411	0.22964
0.42	1.22563	0.25954	0.25912	0.92	2.05826	0.36412	0.18989	1.42	4.09198	0.14014	0.23017
0.43	1.23861	0.27342	0.27299	0.93	2.08104	0.36979	0.19114	1.43	4.14451	0.14611	0.23069
0.44	1.25182	0.28768	0.28724	0.94	2.10408	0.37547	0.19238	1.44	4.19767	0.15201	0.23121
0.45	1.26535	0.30231	0.30186	0.95	2.12738	0.38116	0.19358	1.45	4.25148	0.15784	0.23172
0.46	1.27919	0.31732	0.31686	0.96	2.15094	0.38686	0.19479	1.46	4.30594	0.16360	0.23223
0.47	1.29333	0.33270	0.33223	0.97	2.17476	0.39257	0.19594	1.47	4.36105	0.16929	0.23273
0.48	1.30777	0.34844	0.34796	0.98	2.19884	0.39829	0.19704	1.48	4.41687	0.17491	0.23323
0.49	1.32250	0.36454	0.36405	0.99	2.22318	0.40402	0.19808	1.49	4.47337	0.18046	0.23373
0.50	1.33752	0.38100	0.38050	1.00	2.24778	0.40976	0.19908	1.50	4.53040	0.18594	0.23429

TABLE 6A. Lanchester-Clifford-Schlafli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and $T_{\alpha}(x)$ for $\alpha = 1/5$ and x from 0.00 to 1.50.

$\alpha = 1/5$

x	$F_{1/5}(x)$	$H_{4/5}(x)$	$T_{1/5}(x)$	x	$F_{1/5}(x)$	$H_{4/5}(x)$	$T_{1/5}(x)$	x	$F_{1/5}(x)$	$H_{4/5}(x)$	$T_{1/5}(x)$
1.00	4.53040	1.06142	0.23429	2.0	8.42466	2.07992	0.4608	6.0	700.89071	177.74325	0.25360
1.01	4.56820	1.07682	0.23469	2.1	8.50423	2.12893	0.4615	6.1	779.92971	179.52377	0.25360
1.02	4.60669	1.09240	0.23509	2.2	8.58479	2.17807	0.4622	6.2	865.46092	181.30430	0.25360
1.03	4.70588	1.10814	0.23586	2.3	8.66536	2.22720	0.4629	6.3	961.86701	183.08483	0.25360
1.04	4.82639	1.12406	0.23660	2.4	8.74593	2.27632	0.4636	6.4	1068.68667	184.86536	0.25360
1.05	4.88771	1.14015	0.23730	2.5	8.82650	2.32545	0.4643	6.5	1187.28832	186.64589	0.25360
1.06	4.94976	1.15642	0.23795	2.6	8.90707	2.37458	0.4650	6.6	1318.86678	188.42642	0.25360
1.07	5.01255	1.17286	0.23863	2.7	8.98764	2.42371	0.4657	6.7	1464.93670	190.20695	0.25360
1.08	5.07607	1.18949	0.23934	2.8	9.06821	2.47284	0.4664	6.8	1627.04713	191.98748	0.25360
1.09	5.14035	1.20630	0.24009	2.9	9.14878	2.52197	0.4671	6.9	1806.95125	193.76801	0.25360
1.10	5.20538	1.22330	0.24084	3.0	9.22935	2.57110	0.4678	7.0	2006.58906	195.54854	0.25360
1.11	5.27117	1.24048	0.24159	3.1	9.30992	2.62023	0.4685	7.1	2228.13398	197.32907	0.25360
1.12	5.33774	1.25785	0.24234	3.2	9.39049	2.66936	0.4692	7.2	2473.91227	199.10960	0.25360
1.13	5.40509	1.27541	0.24309	3.3	9.47106	2.71849	0.4699	7.3	2746.63101	200.89013	0.25360
1.14	5.47322	1.29316	0.24384	3.4	9.55163	2.76762	0.4706	7.4	3049.20213	202.67066	0.25360
1.15	5.54216	1.31111	0.24459	3.5	9.63220	2.81675	0.4713	7.5	3384.87750	204.45119	0.25360
1.16	5.61189	1.32925	0.24534	3.6	9.71277	2.86588	0.4720	7.6	3757.26135	206.23172	0.25360
1.17	5.68244	1.34764	0.24609	3.7	9.79334	2.91501	0.4727	7.7	4170.34898	208.01225	0.25360
1.18	5.75382	1.36618	0.24684	3.8	9.87391	2.96414	0.4734	7.8	4628.56851	209.79278	0.25360
1.19	5.82602	1.40383	0.24996	3.9	9.95448	3.01327	0.4741	7.9	5136.82869	211.57331	0.25360
1.20	5.89906	1.44236	0.25308	4.0	10.03505	3.06240	0.4748	8.0	5700.56946	213.35384	0.25360
1.21	5.97295	1.48174	0.25620	4.1	10.11562	3.11153	0.4755	8.1	6325.82188	215.13437	0.25360
1.22	6.04770	1.52199	0.25932	4.2	10.19619	3.16066	0.4762	8.2	7019.26772	216.91490	0.25360
1.23	6.12331	1.56312	0.26244	4.3	10.27676	3.20979	0.4769	8.3	7788.31445	218.69543	0.25360
1.24	6.19979	1.60502	0.26556	4.4	10.35733	3.25892	0.4776	8.4	8641.16934	220.47596	0.25360
1.25	6.27716	1.64771	0.26868	4.5	10.43790	3.30805	0.4783	8.5	9586.93047	222.25649	0.25360
1.26	6.35542	1.69125	0.27180	4.6	10.51847	3.35718	0.4790	8.6	10635.67892	224.03702	0.25360
1.27	6.43459	1.73564	0.27492	4.7	10.59904	3.40631	0.4797	8.7	11798.58552	225.81755	0.25360
1.28	6.51467	1.78080	0.27804	4.8	10.67961	3.45544	0.4804	8.8	13089.03108	227.59808	0.25360
1.29	6.59569	1.82681	0.28116	4.9	10.76018	3.50457	0.4811	8.9	14517.73319	229.37861	0.25360
1.30	6.67759	1.87376	0.28428	5.0	10.84075	3.55370	0.4818	9.0	16102.89504	231.15914	0.25360
1.31	6.76046	1.92161	0.28740	5.1	10.92132	3.60283	0.4825	9.1	17860.35910	232.93967	0.25360
1.32	6.84429	1.97037	0.29052	5.2	11.00189	3.65196	0.4832	9.2	19808.79019	234.72020	0.25360
1.33	6.92907	2.01913	0.29364	5.3	11.08246	3.70109	0.4839	9.3	21968.86871	236.50073	0.25360
1.34	7.01482	2.06888	0.29676	5.4	11.16303	3.75022	0.4846	9.4	24363.50854	238.28126	0.25360
1.35	7.10155	2.11963	0.29988	5.5	11.24360	3.80035	0.4853	9.5	27018.09769	240.06179	0.25360
1.36	7.18928	2.17138	0.30300	5.6	11.32417	3.85048	0.4860	9.6	29960.76485	241.84232	0.25360
1.37	7.27801	2.22413	0.30612	5.7	11.40474	3.90061	0.4867	9.7	33222.44050	243.62285	0.25360
1.38	7.36775	2.27788	0.30924	5.8	11.48531	3.95074	0.4874	9.8	36838.35470	245.40338	0.25360
1.39	7.45851	2.33263	0.31236	5.9	11.56588	4.00087	0.4881	9.9	40846.05746	247.18391	0.25360
1.40	7.55031	2.38838	0.31548	6.0	11.64645	4.05100	0.4888	10.0	45288.16157	248.96444	0.25360
1.41	7.64315	2.44513	0.31860								
1.42	7.73701	2.50288	0.32172								
1.43	7.83187	2.56163	0.32484								
1.44	7.92773	2.62038	0.32796								
1.45	8.02459	2.67913	0.33108								
1.46	8.12245	2.73788	0.33420								
1.47	8.22131	2.79663	0.33732								
1.48	8.32117	2.85538	0.34044								
1.49	8.42203	2.91413	0.34356								
1.50	8.52389	2.97288	0.34668								
1.51	8.62675	3.03163	0.34980								
1.52	8.73061	3.09038	0.35292								
1.53	8.83547	3.14913	0.35604								
1.54	8.94133	3.20788	0.35916								
1.55	9.04819	3.26663	0.36228								
1.56	9.15605	3.32538	0.36540								
1.57	9.26491	3.38413	0.36852								
1.58	9.37477	3.44288	0.37164								
1.59	9.48563	3.50163	0.37476								
1.60	9.59749	3.56038	0.37788								
1.61	9.71035	3.61913	0.38100								
1.62	9.82421	3.67788	0.38412								
1.63	9.93907	3.73663	0.38724								
1.64	10.05393	3.79538	0.39036								
1.65	10.16979	3.85413	0.39348								
1.66	10.28665	3.91288	0.39660								
1.67	10.40451	3.97163	0.39972								
1.68	10.52337	4.03038	0.40284								
1.69	10.64323	4.08913	0.40596								
1.70	10.76409	4.14788	0.40908								
1.71	10.88595	4.20663	0.41220								
1.72	11.00881	4.26538	0.41532								
1.73	11.13267	4.32413	0.41844								
1.74	11.25753	4.38288	0.42156								
1.75	11.38339	4.44163	0.42468								
1.76	11.51025	4.50038	0.42780								
1.77	11.63811	4.55913	0.43092								
1.78	11.76697	4.61788	0.43404								
1.79	11.89683	4.67663	0.43716								
1.80	12.02769	4.73538	0.44028								
1.81	12.15955	4.79413	0.44340								
1.82	12.29241	4.85288	0.44652								
1.83	12.42627	4.91163	0.44964								
1.84	12.56113	4.97038	0.45276								
1.85	12.69700	5.02913	0.45588								
1.86	12.83386	5.08788	0.45900								
1.87	12.97172	5.14663	0.46212								
1.88	13.11058	5.20538	0.46524								
1.89	13.25044	5.26413	0.46836								
1.90	13.39130	5.32288	0.47148								
1.91	13.53316	5.38163	0.47460								
1.92	13.67602	5.44038	0.47772								
1.93	13.82088	5.49913	0.48084								
1.94	13.96674	5.55788	0.48396								
1.95	14.11360	5.61663	0.48708								
1.96	14.26146	5.67538	0.49020								
1.97	14.41032	5.73413	0.49332								
1.98	14.56018	5.79288	0.49644								
1.99	14.71104	5.85163	0.49956								
2.00	14.86290	5.91038	0.50268								

TABLE 6B. Lanchester-Clifford-Schlafli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and $T_{\alpha}(x)$ for $\alpha = 1/5$ and x from 1.50 to 10.0.

x	$F_{2/5}(x)$	$H_{3/5}(x)$	$T_{2/5}(x)$	x	$F_{2/5}(x)$	$H_{3/5}(x)$	$T_{2/5}(x)$	x	$F_{2/5}(x)$	$H_{3/5}(x)$	$T_{2/5}(x)$
0.0	1.00000	0.0	0.0	0.50	1.15977	0.33826	0.23304	1.00	1.63778	0.84439	0.50173
0.01	1.00006	0.00289	0.00289	0.51	1.16637	0.33668	0.28865	1.01	1.69743	0.8507	0.50783
0.02	1.00053	0.00664	0.00663	0.52	1.17312	0.33516	0.29422	1.02	1.75818	0.85696	0.51394
0.03	1.00056	0.01079	0.01079	0.53	1.18001	0.33364	0.29975	1.03	1.81903	0.86317	0.52005
0.04	1.00100	0.01525	0.01523	0.54	1.18704	0.33213	0.30524	1.04	1.88028	0.86938	0.52616
0.05	1.00156	0.01993	0.01990	0.55	1.19422	0.33062	0.31073	1.05	1.94181	0.87559	0.53227
0.06	1.00219	0.02481	0.02477	0.56	1.20160	0.32910	0.31622	1.06	2.00466	0.88180	0.53838
0.07	1.00296	0.02981	0.02977	0.57	1.20917	0.32758	0.32171	1.07	2.06886	0.88801	0.54449
0.08	1.00384	0.03496	0.03492	0.58	1.21694	0.32606	0.32720	1.08	2.13441	0.89422	0.55060
0.09	1.00507	0.04039	0.04018	0.59	1.22491	0.32454	0.33269	1.09	2.20141	0.90043	0.55671
0.10	1.00626	0.04584	0.04556	0.60	1.23322	0.32302	0.33818	1.10	2.26986	0.90664	0.56282
0.11	1.00757	0.05142	0.05103	0.61	1.24189	0.32150	0.34367	1.11	2.33977	0.91285	0.56893
0.12	1.00901	0.05710	0.05659	0.62	1.25093	0.32000	0.34916	1.12	2.41114	0.91906	0.57504
0.13	1.01058	0.06287	0.06222	0.63	1.25998	0.31850	0.35465	1.13	2.48395	0.92527	0.58115
0.14	1.01227	0.06875	0.06792	0.64	1.26950	0.31700	0.36014	1.14	2.55820	0.93148	0.58726
0.15	1.01409	0.07472	0.07368	0.65	1.27917	0.31550	0.36563	1.15	2.63399	0.93769	0.59337
0.16	1.01604	0.08080	0.07960	0.66	1.28900	0.31400	0.37112	1.16	2.71132	0.94390	0.59948
0.17	1.01811	0.08699	0.08570	0.67	1.29899	0.31250	0.37661	1.17	2.79019	0.95011	0.60559
0.18	1.02031	0.09337	0.09209	0.68	1.30912	0.31100	0.38210	1.18	2.87060	0.95632	0.61170
0.19	1.02264	0.09994	0.09824	0.69	1.31942	0.30950	0.38759	1.19	2.95255	0.96253	0.61781
0.20	1.02509	0.10672	0.10483	0.70	1.33000	0.30800	0.39308	1.20	3.03604	0.96874	0.62392
0.21	1.02767	0.11372	0.11173	0.71	1.34077	0.30650	0.39857	1.21	3.12107	0.97495	0.63003
0.22	1.03038	0.12094	0.11885	0.72	1.35172	0.30500	0.40406	1.22	3.20764	0.98116	0.63614
0.23	1.03322	0.12839	0.12620	0.73	1.36284	0.30350	0.40955	1.23	3.29575	0.98737	0.64225
0.24	1.03619	0.13606	0.13377	0.74	1.37412	0.30200	0.41504	1.24	3.38540	0.99358	0.64836
0.25	1.03928	0.14394	0.14155	0.75	1.38557	0.30050	0.42053	1.25	3.47659	0.99979	0.65447
0.26	1.04250	0.15204	0.14956	0.76	1.39719	0.29900	0.42602	1.26	3.56932	1.00600	0.66058
0.27	1.04583	0.16037	0.15809	0.77	1.40899	0.29750	0.43151	1.27	3.66359	1.01221	0.66669
0.28	1.04936	0.16894	0.16686	0.78	1.42097	0.29600	0.43700	1.28	3.75940	1.01842	0.67280
0.29	1.05309	0.17774	0.17555	0.79	1.43312	0.29450	0.44249	1.29	3.85675	1.02463	0.67891
0.30	1.05692	0.18677	0.18448	0.80	1.44544	0.29300	0.44798	1.30	3.95564	1.03084	0.68502
0.31	1.06085	0.19601	0.19362	0.81	1.45793	0.29150	0.45347	1.31	4.05607	1.03705	0.69113
0.32	1.06488	0.20546	0.20297	0.82	1.47059	0.29000	0.45896	1.32	4.15804	1.04326	0.69724
0.33	1.06893	0.21512	0.21253	0.83	1.48342	0.28850	0.46445	1.33	4.26155	1.04947	0.70335
0.34	1.07300	0.22499	0.22230	0.84	1.49641	0.28700	0.46994	1.34	4.36660	1.05568	0.70946
0.35	1.07719	0.23507	0.23228	0.85	1.50956	0.28550	0.47543	1.35	4.47319	1.06189	0.71557
0.36	1.08149	0.24536	0.24247	0.86	1.52287	0.28400	0.48092	1.36	4.58132	1.06810	0.72168
0.37	1.08589	0.25585	0.25286	0.87	1.53634	0.28250	0.48641	1.37	4.69099	1.07431	0.72779
0.38	1.09039	0.26654	0.26345	0.88	1.54997	0.28100	0.49190	1.38	4.80220	1.08052	0.73390
0.39	1.09499	0.27743	0.27424	0.89	1.56376	0.27950	0.49739	1.39	4.91495	1.08673	0.74001
0.40	1.10144	0.28862	0.28533	0.90	1.57771	0.27800	0.50288	1.40	5.02924	1.09294	0.74612
0.41	1.10665	0.29999	0.29660	0.91	1.59182	0.27650	0.50837	1.41	5.14507	1.09915	0.75223
0.42	1.11200	0.31154	0.30805	0.92	1.60609	0.27500	0.51386	1.42	5.26244	1.10536	0.75834
0.43	1.11749	0.32327	0.31968	0.93	1.62052	0.27350	0.51935	1.43	5.38135	1.11157	0.76445
0.44	1.12311	0.33518	0.33149	0.94	1.63511	0.27200	0.52484	1.44	5.50180	1.11778	0.77056
0.45	1.12887	0.34729	0.34350	0.95	1.64986	0.27050	0.53033	1.45	5.62389	1.12399	0.77667
0.46	1.13477	0.35960	0.35571	0.96	1.66477	0.26900	0.53582	1.46	5.74762	1.13020	0.78278
0.47	1.14081	0.37211	0.36812	0.97	1.67984	0.26750	0.54131	1.47	5.87299	1.13641	0.78889
0.48	1.14699	0.38482	0.38093	0.98	1.69507	0.26600	0.54680	1.48	6.00000	1.14262	0.79500
0.49	1.15331	0.39773	0.39374	0.99	1.71046	0.26450	0.55229	1.49	6.12869	1.14883	0.80111
0.50	1.15977	0.41084	0.40675	1.00	1.72601	0.26300	0.55778	1.50	6.25894	1.15504	0.80722

TABLE 7A. Lanchester-Clifford-Schlafli Functions $F_\alpha(x)$, $H_{1-\alpha}(x)$, and

$T_\alpha(x)$ for $\alpha = 2/5$ and x from 0.00 to 1.50.

$\alpha = 2/5$

x	$F_{2/5}(x)$	$H_{3/5}(x)$	$T_{2/5}(x)$	x	$F_{2/5}(x)$	$H_{3/5}(x)$	$T_{2/5}(x)$	x	$F_{2/5}(x)$	$H_{3/5}(x)$	$T_{2/5}(x)$
1.50	2.71176	1.64228	0.60561	2.0	4.52661	2.92825	0.6692	6.0	278.92057	137.35697	0.67136
1.51	2.73913	1.66234	0.60689	2.1	5.07588	3.24695	0.6732	6.1	308.82161	207.32867	0.67136
1.52	2.76811	1.68309	0.60813	2.2	5.57258	3.56495	0.6769	6.2	341.91611	279.34871	0.67136
1.53	2.80000	1.70500	0.60956	2.3	6.06334	3.88328	0.6806	6.3	378.54665	354.40623	0.67136
1.54	2.83312	1.72869	0.61056	2.4	6.54831	4.20271	0.6840	6.4	419.08665	431.55829	0.67136
1.55	2.86750	1.75453	0.61174	2.5	7.02853	4.52321	0.6869	6.5	463.95527	511.84816	0.67136
1.56	2.90300	1.78200	0.61300	2.6	7.50406	4.84471	0.6898	6.6	513.61268	594.81964	0.67136
1.57	2.93959	1.81083	0.61435	2.7	7.97531	5.16721	0.6926	6.7	568.56856	681.1529	0.67136
1.58	2.97722	1.84095	0.61582	2.8	8.44228	5.49071	0.6954	6.8	629.38482	771.54725	0.67136
1.59	3.01589	1.87238	0.61741	2.9	8.90504	5.81521	0.6982	6.9	696.69459	866.73468	0.67136
1.60	3.05560	1.90500	0.61911	3.0	9.36361	6.14071	0.7009	7.0	771.17956	967.76129	0.67136
1.61	3.09636	1.93885	0.62091	3.1	9.81806	6.46721	0.7036	7.1	853.60666	1075.0808	0.67136
1.62	3.13817	1.97391	0.62281	3.2	10.26831	6.79471	0.7063	7.2	944.82166	1189.31861	0.67136
1.63	3.18100	2.01020	0.62480	3.3	10.71436	7.12321	0.7089	7.3	1045.75917	1310.9474	0.67136
1.64	3.22493	2.04783	0.62688	3.4	11.15621	7.45271	0.7116	7.4	1157.45522	1440.7309	0.67136
1.65	3.26996	2.08669	0.62905	3.5	11.59396	7.78321	0.7142	7.5	1281.05275	1579.05207	0.67136
1.66	3.31617	2.12678	0.63131	3.6	12.02761	8.11471	0.7168	7.6	1417.81877	1725.4175	0.67136
1.67	3.36354	2.16817	0.63366	3.7	12.45716	8.44721	0.7193	7.7	1569.15340	1880.4253	0.67136
1.68	3.41206	2.21084	0.63611	3.8	12.88261	8.78071	0.7218	7.8	1736.60666	2043.6472	0.67136
1.69	3.46173	2.25479	0.63866	3.9	13.30396	9.11521	0.7243	7.9	1921.69281	2215.2911	0.67136
1.70	3.51254	2.30000	0.64131	4.0	13.72121	9.45071	0.7268	8.0	2126.90775	2399.67524	0.67136
1.71	3.56449	2.34649	0.64406	4.1	14.13436	9.78721	0.7293	8.1	2353.74911	2602.2198	0.67136
1.72	3.61758	2.39424	0.64691	4.2	14.54341	10.12471	0.7318	8.2	2604.73786	2824.7653	0.67136
1.73	3.67181	2.44324	0.64986	4.3	14.94846	10.46321	0.7343	8.3	2882.43966	3067.14571	0.67136
1.74	3.72717	2.49349	0.65291	4.4	15.34951	10.80271	0.7368	8.4	3189.69479	3329.6124	0.67136
1.75	3.78366	2.54499	0.65606	4.5	15.74656	11.14321	0.7393	8.5	3529.64379	3612.9195	0.67136
1.76	3.84129	2.59774	0.65931	4.6	16.13961	11.48471	0.7418	8.6	3905.76091	3917.8672	0.67136
1.77	3.89996	2.65174	0.66266	4.7	16.52866	11.82721	0.7443	8.7	4321.89965	4245.0028	0.67136
1.78	3.95969	2.70699	0.66611	4.8	16.91371	12.17071	0.7468	8.8	4779.17881	4595.6490	0.67136
1.79	4.02048	2.76349	0.66966	4.9	17.29476	12.51521	0.7493	8.9	5291.63481	4970.6124	0.67136
1.80	4.08233	2.82124	0.67331	5.0	17.67181	12.86071	0.7518	9.0	5855.15531	5370.3995	0.67136
1.81	4.14524	2.88024	0.67706	5.1	18.04486	13.20721	0.7543	9.1	6478.59521	5794.3486	0.67136
1.82	4.20929	2.94049	0.68091	5.2	18.41301	13.55471	0.7568	9.2	7168.31763	6242.4961	0.67136
1.83	4.27449	2.99999	0.68486	5.3	18.77656	13.90321	0.7593	9.3	7931.36179	6714.8292	0.67136
1.84	4.34084	3.06074	0.68891	5.4	19.13561	14.25271	0.7618	9.4	8775.51354	7212.1279	0.67136
1.85	4.40834	3.12274	0.69306	5.5	19.49016	14.60321	0.7643	9.5	9709.38476	7719.4209	0.67136
1.86	4.47699	3.18599	0.69731	5.6	19.84021	14.95471	0.7668	9.6	10742.50093	8249.7209	0.67136
1.87	4.54679	3.25049	0.70166	5.7	20.18576	15.30721	0.7693	9.7	11885.3284	8797.4209	0.67136
1.88	4.61774	3.31624	0.70611	5.8	20.52681	15.66071	0.7718	9.8	13148.3836	9374.5209	0.67136
1.89	4.68984	3.38324	0.71066	5.9	20.86336	16.01521	0.7743	9.9	14548.3836	9979.6209	0.67136
1.90	4.76309	3.45149	0.71531	6.0	21.19541	16.37071	0.7768	10.0	16095.61973	10606.01804	0.67136
1.91	4.83749	3.52099	0.72006								
1.92	4.91299	3.59174	0.72491								
1.93	4.98959	3.66374	0.72986								
1.94	5.06729	3.73699	0.73491								
1.95	5.14609	3.81149	0.74006								
1.96	5.22599	3.88724	0.74531								
1.97	5.30699	3.96424	0.75066								
1.98	5.38909	4.04249	0.75611								
1.99	5.47229	4.12199	0.76166								
2.00	5.55749	4.20274	0.76731								

TABLE 7B. Lanchester-Clifford-Schlafli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and $T_{\alpha}(x)$ for $\alpha = 2/5$ and x from 1.50 to 10.0.

x	$F_{3/5}(x)$	$H_{2/5}(x)$	$T_{3/5}(x)$	x	$F_{3/5}(x)$	$H_{2/5}(x)$	$T_{3/5}(x)$	x	$F_{3/5}(x)$	$H_{2/5}(x)$	$T_{3/5}(x)$
0.0	1.00000	0.0	0.0	0.50	1.10622	0.847199	0.77922	1.00	1.45033	1.70597	1.17630
0.01	1.00047	0.00267	0.003607	0.51	1.11507	0.847199	0.77922	1.01	1.45033	1.70597	1.17630
0.02	1.00094	0.00534	0.007214	0.52	1.11907	0.847199	0.77922	1.02	1.45033	1.70597	1.17630
0.03	1.00141	0.00801	0.010824	0.53	1.12307	0.847199	0.77922	1.03	1.45033	1.70597	1.17630
0.04	1.00188	0.01068	0.014434	0.54	1.12707	0.847199	0.77922	1.04	1.45033	1.70597	1.17630
0.05	1.00235	0.01335	0.018044	0.55	1.13107	0.847199	0.77922	1.05	1.45033	1.70597	1.17630
0.06	1.00282	0.01602	0.021654	0.56	1.13507	0.847199	0.77922	1.06	1.45033	1.70597	1.17630
0.07	1.00329	0.01869	0.025264	0.57	1.13907	0.847199	0.77922	1.07	1.45033	1.70597	1.17630
0.08	1.00376	0.02136	0.028874	0.58	1.14307	0.847199	0.77922	1.08	1.45033	1.70597	1.17630
0.09	1.00423	0.02403	0.032484	0.59	1.14707	0.847199	0.77922	1.09	1.45033	1.70597	1.17630
0.10	1.00470	0.02670	0.036094	0.60	1.15107	0.847199	0.77922	1.10	1.45033	1.70597	1.17630
0.11	1.00517	0.02937	0.039704	0.61	1.15507	0.847199	0.77922	1.11	1.45033	1.70597	1.17630
0.12	1.00564	0.03204	0.043314	0.62	1.15907	0.847199	0.77922	1.12	1.45033	1.70597	1.17630
0.13	1.00611	0.03471	0.046924	0.63	1.16307	0.847199	0.77922	1.13	1.45033	1.70597	1.17630
0.14	1.00658	0.03738	0.050534	0.64	1.16707	0.847199	0.77922	1.14	1.45033	1.70597	1.17630
0.15	1.00705	0.04005	0.054144	0.65	1.17107	0.847199	0.77922	1.15	1.45033	1.70597	1.17630
0.16	1.00752	0.04272	0.057754	0.66	1.17507	0.847199	0.77922	1.16	1.45033	1.70597	1.17630
0.17	1.00799	0.04539	0.061364	0.67	1.17907	0.847199	0.77922	1.17	1.45033	1.70597	1.17630
0.18	1.00846	0.04806	0.064974	0.68	1.18307	0.847199	0.77922	1.18	1.45033	1.70597	1.17630
0.19	1.00893	0.05073	0.068584	0.69	1.18707	0.847199	0.77922	1.19	1.45033	1.70597	1.17630
0.20	1.00940	0.05340	0.072194	0.70	1.19107	0.847199	0.77922	1.20	1.45033	1.70597	1.17630
0.21	1.00987	0.05607	0.075804	0.71	1.19507	0.847199	0.77922	1.21	1.45033	1.70597	1.17630
0.22	1.01034	0.05874	0.079414	0.72	1.19907	0.847199	0.77922	1.22	1.45033	1.70597	1.17630
0.23	1.01081	0.06141	0.083024	0.73	1.20307	0.847199	0.77922	1.23	1.45033	1.70597	1.17630
0.24	1.01128	0.06408	0.086634	0.74	1.20707	0.847199	0.77922	1.24	1.45033	1.70597	1.17630
0.25	1.01175	0.06675	0.090244	0.75	1.21107	0.847199	0.77922	1.25	1.45033	1.70597	1.17630
0.26	1.01222	0.06942	0.093854	0.76	1.21507	0.847199	0.77922	1.26	1.45033	1.70597	1.17630
0.27	1.01269	0.07209	0.097464	0.77	1.21907	0.847199	0.77922	1.27	1.45033	1.70597	1.17630
0.28	1.01316	0.07476	0.101074	0.78	1.22307	0.847199	0.77922	1.28	1.45033	1.70597	1.17630
0.29	1.01363	0.07743	0.104684	0.79	1.22707	0.847199	0.77922	1.29	1.45033	1.70597	1.17630
0.30	1.01410	0.08010	0.108294	0.80	1.23107	0.847199	0.77922	1.30	1.45033	1.70597	1.17630
0.31	1.01457	0.08277	0.111904	0.81	1.23507	0.847199	0.77922	1.31	1.45033	1.70597	1.17630
0.32	1.01504	0.08544	0.115514	0.82	1.23907	0.847199	0.77922	1.32	1.45033	1.70597	1.17630
0.33	1.01551	0.08811	0.119124	0.83	1.24307	0.847199	0.77922	1.33	1.45033	1.70597	1.17630
0.34	1.01598	0.09078	0.122734	0.84	1.24707	0.847199	0.77922	1.34	1.45033	1.70597	1.17630
0.35	1.01645	0.09345	0.126344	0.85	1.25107	0.847199	0.77922	1.35	1.45033	1.70597	1.17630
0.36	1.01692	0.09612	0.129954	0.86	1.25507	0.847199	0.77922	1.36	1.45033	1.70597	1.17630
0.37	1.01739	0.09879	0.133564	0.87	1.25907	0.847199	0.77922	1.37	1.45033	1.70597	1.17630
0.38	1.01786	0.10146	0.137174	0.88	1.26307	0.847199	0.77922	1.38	1.45033	1.70597	1.17630
0.39	1.01833	0.10413	0.140784	0.89	1.26707	0.847199	0.77922	1.39	1.45033	1.70597	1.17630
0.40	1.01880	0.10680	0.144394	0.90	1.27107	0.847199	0.77922	1.40	1.45033	1.70597	1.17630
0.41	1.01927	0.10947	0.148004	0.91	1.27507	0.847199	0.77922	1.41	1.45033	1.70597	1.17630
0.42	1.01974	0.11214	0.151614	0.92	1.27907	0.847199	0.77922	1.42	1.45033	1.70597	1.17630
0.43	1.02021	0.11481	0.155224	0.93	1.28307	0.847199	0.77922	1.43	1.45033	1.70597	1.17630
0.44	1.02068	0.11748	0.158834	0.94	1.28707	0.847199	0.77922	1.44	1.45033	1.70597	1.17630
0.45	1.02115	0.12015	0.162444	0.95	1.29107	0.847199	0.77922	1.45	1.45033	1.70597	1.17630
0.46	1.02162	0.12282	0.166054	0.96	1.29507	0.847199	0.77922	1.46	1.45033	1.70597	1.17630
0.47	1.02209	0.12549	0.169664	0.97	1.29907	0.847199	0.77922	1.47	1.45033	1.70597	1.17630
0.48	1.02256	0.12816	0.173274	0.98	1.30307	0.847199	0.77922	1.48	1.45033	1.70597	1.17630
0.49	1.02303	0.13083	0.176884	0.99	1.30707	0.847199	0.77922	1.49	1.45033	1.70597	1.17630
0.50	1.02350	0.13350	0.180494	1.00	1.31107	0.847199	0.77922	1.50	1.45033	1.70597	1.17630

TABLE 8A. Lanchester-Clifford-Schlafli Functions $F_\alpha(x)$, $H_{1-\alpha}(x)$, and $T_\alpha(x)$ for $\alpha = 3/5$ and x from 0.00 to 1.50.

$\alpha = 3/5$

x	$F_{3/5}(x)$	$H_{2/5}(x)$	$T_{3/5}(x)$	x	$F_{3/5}(x)$	$H_{2/5}(x)$	$T_{3/5}(x)$	x	$F_{3/5}(x)$	$H_{2/5}(x)$	$T_{3/5}(x)$
1.50	2.1145	2.89285	1.36221	2.0	3.25912	4.67936	1.44999	6.0	153.10773	228.05212	1.48949
1.51	2.11497	2.89295	1.36227	2.1	3.26723	4.67957	1.45007	6.1	168.90993	251.58239	1.48949
1.52	2.11538	2.89305	1.36233	2.2	3.27534	4.67977	1.45015	6.2	183.78113	277.54946	1.48949
1.53	2.11579	2.89315	1.36239	2.3	3.28345	4.67997	1.45023	6.3	198.63233	306.20635	1.48949
1.54	2.11620	2.89325	1.36245	2.4	3.29156	4.68017	1.45031	6.4	213.46351	337.45198	1.48950
1.55	2.20402	3.02965	1.31460	2.5	5.16006	7.59185	1.47127	6.5	250.10483	372.73492	1.48950
1.56	2.22248	3.05979	1.31475	2.6	5.66727	8.35659	1.47453	6.6	276.10298	411.25538	1.48950
1.57	2.24113	3.09020	1.31490	2.7	6.27210	9.19818	1.47722	6.7	308.64504	453.76907	1.48950
1.58	2.25999	3.12088	1.31505	2.8	6.88489	10.12489	1.47992	6.8	333.14649	500.69017	1.48950
1.59	2.27904	3.15183	1.31520	2.9	7.52655	11.14858	1.48262	6.9	370.91477	552.47842	1.48950
1.60	2.29830	3.18306	1.31535	3.0	8.21860	12.27405	1.48532	7.0	408.29931	609.63759	1.48950
1.61	2.31777	3.21459	1.31550	3.1	8.95239	13.50477	1.48802	7.1	451.64484	672.72646	1.48950
1.62	2.33744	3.24635	1.31565	3.2	9.72885	14.83947	1.49072	7.2	495.95511	742.36111	1.48950
1.63	2.35732	3.27833	1.31580	3.3	10.54831	16.27416	1.49342	7.3	540.9557	819.22233	1.48950
1.64	2.37742	3.31059	1.31595	3.4	11.41231	17.80889	1.49612	7.4	586.9557	904.06134	1.48950
1.65	2.39773	3.34314	1.31610	3.5	12.32047	19.44362	1.49882	7.5	633.77069	997.70714	1.48950
1.66	2.41835	3.37599	1.31625	3.6	13.27288	21.17845	1.50152	7.6	682.2282	1101.07568	1.48950
1.67	2.43929	3.40914	1.31640	3.7	14.26946	23.01317	1.50422	7.7	733.2282	1215.17807	1.48950
1.68	2.46055	3.44259	1.31655	3.8	15.31117	24.94790	1.50692	7.8	785.82701	1341.13066	1.48950
1.69	2.48213	3.47635	1.31670	3.9	16.40890	26.98263	1.50959	7.9	840.38700	1480.16666	1.48950
1.70	2.50404	3.51051	1.31685	4.0	17.56289	29.21736	1.51225	8.0	897.77069	1633.64536	1.48950
1.71	2.52627	3.54517	1.31700	4.1	18.77349	31.65209	1.51492	8.1	957.95511	1803.07095	1.48950
1.72	2.54881	3.58033	1.31715	4.2	20.04089	34.18682	1.51759	8.2	1020.95511	1990.40239	1.48950
1.73	2.57166	3.61599	1.31730	4.3	21.36549	36.82155	1.52025	8.3	1086.95511	2196.50132	1.48951
1.74	2.59481	3.65215	1.31745	4.4	22.74889	39.55628	1.52291	8.4	1155.95511	2421.50132	1.48951
1.75	2.61826	3.68881	1.31760	4.5	24.19149	42.39101	1.52557	8.5	1227.95511	2666.50132	1.48951
1.76	2.64201	3.72596	1.31775	4.6	25.69409	45.32574	1.52822	8.6	1302.95511	2931.50132	1.48951
1.77	2.66606	3.76361	1.31790	4.7	27.25669	48.36047	1.53087	8.7	1380.95511	3216.50132	1.48951
1.78	2.69041	3.80176	1.31805	4.8	28.87929	51.49520	1.53352	8.8	1461.95511	3521.50132	1.48951
1.79	2.71506	3.84041	1.31820	4.9	30.56189	54.73043	1.53617	8.9	1545.95511	3846.50132	1.48951
1.80	2.73991	3.87956	1.31835	5.0	32.30449	58.06566	1.53882	9.0	1633.95511	4191.50132	1.48951
1.81	2.76506	3.91921	1.31850	5.1	34.10709	61.50089	1.54147	9.1	1725.95511	4556.50132	1.48951
1.82	2.79041	3.95936	1.31865	5.2	35.97969	65.03612	1.54412	9.2	1821.95511	4941.50132	1.48951
1.83	2.81596	4.00001	1.31880	5.3	37.92229	68.67135	1.54677	9.3	1921.95511	5346.50132	1.48951
1.84	2.84171	4.04116	1.31895	5.4	39.93489	72.40658	1.54942	9.4	2025.95511	5771.50132	1.48951
1.85	2.86766	4.08281	1.31910	5.5	42.01749	76.24181	1.55207	9.5	2133.95511	6216.50132	1.48951
1.86	2.89381	4.12506	1.31925	5.6	44.17009	80.17704	1.55472	9.6	2245.95511	6681.50132	1.48951
1.87	2.92016	4.16781	1.31940	5.7	46.39269	84.21227	1.55737	9.7	2361.95511	7166.50132	1.48951
1.88	2.94671	4.21106	1.31955	5.8	48.68529	88.34750	1.56002	9.8	2481.95511	7671.50132	1.48951
1.89	2.97346	4.25481	1.31970	5.9	51.04789	92.58273	1.56267	9.9	2605.95511	8196.50132	1.48951
1.90	2.98001	4.25906	1.31975	6.0	53.48049	96.91796	1.56532	10.0	2733.95511	8741.50132	1.48951
1.91	3.00776	4.26381	1.31990								
1.92	3.03571	4.26856	1.32005								
1.93	3.06386	4.27331	1.32020								
1.94	3.08866	4.27806	1.32035								
1.95	3.11636	4.28281	1.32050								
1.96	3.14433	4.28756	1.32065								
1.97	3.17259	4.29231	1.32080								
1.98	3.20114	4.29706	1.32095								
1.99	3.22998	4.30181	1.32110								
2.00	3.25912	4.30656	1.32125								

TABLE 8B. Lanchester-Clifford-Schlafli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and $T_{\alpha}(x)$ for $\alpha = 3/5$ and x from 1.50 to 10.0.

x	$F_{4/5}(x)$	$H_{1/5}(x)$	$T_{4/5}(x)$	x	$F_{4/5}(x)$	$H_{1/5}(x)$	$T_{4/5}(x)$	x	$F_{4/5}(x)$	$H_{1/5}(x)$	$T_{4/5}(x)$
0.0	1.00000	0.0	0.0	0.50	1.07949	3.02345	2.80081	1.00	1.33486	4.62477	3.46461
0.01	1.00003	0.00357	0.60956	0.51	1.08776	3.05377	2.82035	1.01	1.34290	4.66104	3.47305
0.02	1.00010	0.00795	0.79941	0.52	1.09610	3.08406	2.83955	1.02	1.35096	4.69757	3.48134
0.03	1.00020	0.01315	0.93169	0.53	1.09851	3.11425	2.85840	1.03	1.35911	4.73435	3.48950
0.04	1.00050	0.01959	1.04547	0.54	1.09954	3.14444	2.87793	1.04	1.36742	4.77139	3.49752
0.05	1.00078	1.14386	1.14297	0.55	1.09654	3.17461	2.89513	1.05	1.37179	4.80869	3.50547
0.06	1.00113	1.23068	1.22729	0.56	1.10015	3.20479	2.91302	1.06	1.37966	4.84626	3.51341
0.07	1.00153	1.30920	1.30130	0.57	1.10384	3.23493	2.93060	1.07	1.38752	4.88410	3.52130
0.08	1.00200	1.38157	1.37881	0.58	1.10761	3.26509	2.94788	1.08	1.39537	4.92222	3.52910
0.09	1.00250	1.44803	1.44307	0.59	1.11144	3.29526	2.96486	1.09	1.40332	4.96061	3.53667
0.10	1.00313	1.51149	1.50829	0.60	1.11534	3.32546	2.98156	1.10	1.41192	5.00029	3.54429
0.11	1.00388	1.57192	1.56820	0.61	1.11932	3.35569	2.99799	1.11	1.42110	5.04055	3.55205
0.12	1.00450	1.62934	1.62823	0.62	1.12347	3.38596	3.01411	1.12	1.43087	5.08146	3.55997
0.13	1.00529	1.68357	1.67723	0.63	1.12779	3.41627	3.02998	1.13	1.44125	5.12309	3.56795
0.14	1.00613	1.73393	1.72237	0.64	1.13169	3.44664	3.04558	1.14	1.45216	5.16543	3.57602
0.15	1.00704	1.78249	1.77003	0.65	1.13595	3.47706	3.06092	1.15	1.46276	5.20847	3.58421
0.16	1.00801	1.83029	1.81574	0.66	1.14030	3.50755	3.07600	1.16	1.47014	5.25219	3.59261
0.17	1.00905	1.87650	1.85967	0.67	1.14471	3.53812	3.09083	1.17	1.47898	5.29669	3.60121
0.18	1.01015	1.92129	1.90199	0.68	1.14917	3.56879	3.10547	1.18	1.48893	5.34194	3.61002
0.19	1.01131	1.96461	1.94284	0.69	1.15377	3.59949	3.11977	1.19	1.49997	5.38797	3.61903
0.20	1.01253	2.00716	1.98231	0.70	1.15841	3.63032	3.13387	1.20	1.50613	5.43472	3.62825
0.21	1.01382	2.04846	2.02057	0.71	1.16313	3.66132	3.14775	1.21	1.51243	5.48223	3.63768
0.22	1.01518	2.08880	2.05757	0.72	1.16792	3.69246	3.16139	1.22	1.51881	5.53051	3.64731
0.23	1.01659	2.12825	2.09352	0.73	1.17274	3.72340	3.17482	1.23	1.52541	5.57955	3.65714
0.24	1.01801	2.16691	2.12844	0.74	1.17774	3.75445	3.18802	1.24	1.53219	5.62935	3.66718
0.25	1.01962	2.20482	2.16240	0.75	1.18276	3.78603	3.20100	1.25	1.53913	5.67990	3.67743
0.26	1.02129	2.24204	2.19545	0.76	1.18781	3.81753	3.21377	1.26	1.54638	5.73121	3.68788
0.27	1.02290	2.27865	2.22764	0.77	1.19295	3.84905	3.22638	1.27	1.55387	5.78329	3.69853
0.28	1.02464	2.31467	2.25902	0.78	1.19814	3.88059	3.23883	1.28	1.56157	5.83615	3.70938
0.29	1.02644	2.35015	2.28953	0.79	1.20334	3.91284	3.25084	1.29	1.56941	5.88978	3.72041
0.30	1.02830	2.38515	2.31950	0.80	1.20856	3.94491	3.26279	1.30	1.57745	5.94419	3.73173
0.31	1.03023	2.41968	2.34868	0.81	1.21380	3.97712	3.27455	1.31	1.58565	6.00000	3.74334
0.32	1.03223	2.45380	2.37718	0.82	1.21904	4.00950	3.28611	1.32	1.59399	6.05722	3.75525
0.33	1.03429	2.48752	2.40505	0.83	1.22429	4.04204	3.29748	1.33	1.60245	6.11585	3.76747
0.34	1.03642	2.52088	2.43231	0.84	1.22953	4.07474	3.30867	1.34	1.61101	6.17588	3.77999
0.35	1.03861	2.55391	2.45897	0.85	1.23476	4.10762	3.31968	1.35	1.61968	6.23729	3.79281
0.36	1.04087	2.58663	2.48507	0.86	1.24000	4.14068	3.33059	1.36	1.62845	6.29999	3.80593
0.37	1.04319	2.61906	2.51063	0.87	1.24525	4.17389	3.34132	1.37	1.63733	6.36399	3.81934
0.38	1.04558	2.65124	2.53566	0.88	1.25052	4.20735	3.35192	1.38	1.64631	6.42928	3.83305
0.39	1.04804	2.68317	2.56019	0.89	1.25584	4.24109	3.36245	1.39	1.65545	6.49587	3.84707
0.40	1.05056	2.71488	2.58422	0.90	1.26111	4.27478	3.37205	1.40	1.66473	6.56375	3.86139
0.41	1.05313	2.74639	2.60779	0.91	1.26703	4.30880	3.38201	1.41	1.67415	6.63292	3.87599
0.42	1.05580	2.77771	2.63089	0.92	1.27294	4.34303	3.39181	1.42	1.68371	6.70339	3.89088
0.43	1.05858	2.80886	2.65356	0.93	1.27894	4.37746	3.40145	1.43	1.69341	6.77515	3.90607
0.44	1.06132	2.83987	2.67579	0.94	1.28494	4.41211	3.41093	1.44	1.70325	6.84828	3.92155
0.45	1.06418	2.87073	2.69761	0.95	1.30019	4.44699	3.42029	1.45	1.71323	6.92279	3.93732
0.46	1.06710	2.90147	2.71902	0.96	1.30546	4.48206	3.42944	1.46	1.72333	7.00000	3.95337
0.47	1.07010	2.93210	2.74003	0.97	1.31076	4.51739	3.43843	1.47	1.73355	7.07928	3.96969
0.48	1.07316	2.96263	2.76066	0.98	1.31612	4.55295	3.44731	1.48	1.74389	7.16081	3.98628
0.49	1.07629	2.99308	2.78092	0.99	1.32175	4.58874	3.45604	1.49	1.75431	7.24359	3.99314
0.50	1.07949	3.02345	2.80081	1.00	1.33486	4.62477	3.46461	1.50	1.82062	6.82373	3.75077

TABLE 9A. Lanchester-Clifford-Schlafli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and $T_{\alpha}(x)$ for $\alpha = 4/5$ and x from 0.00 to 1.50.

$\alpha = 4/5$

x	$F_{4/5}(x)$	$H_{1/5}(x)$	$T_{4/5}(x)$	x	$F_{4/5}(x)$	$H_{1/5}(x)$	$T_{4/5}(x)$	x	$F_{4/5}(x)$	$H_{1/5}(x)$	$T_{4/5}(x)$
1.50	1.82062	6.82373	3.75077	2.0	2.64139	10.21838	3.86856	6.0	97.15298	383.09540	3.94322
1.51	1.83330	6.88281	3.75432	2.1	2.85378	11.10058	3.88162	6.1	106.80157	421.14242	3.94323
1.52	1.84612	6.93736	3.75781	2.2	3.10233	12.06747	3.89244	6.2	117.40194	463.01142	3.94324
1.53	1.85906	6.99238	3.76124	2.3	3.36883	13.12750	3.90139	6.3	129.10452	509.08060	3.94325
1.54	1.87214	7.04789	3.76461	2.4	3.64883	14.28993	3.90878	6.4	141.96489	559.00068	3.94326
1.55	1.88537	7.10388	3.76791	2.5	3.94293	15.56493	3.91488	6.5	156.11948	615.41587	3.94327
1.56	1.89872	7.16035	3.77126	2.6	4.25255	16.94762	3.91992	6.6	171.69334	677.05126	3.94328
1.57	1.91219	7.21735	3.77459	2.7	4.57706	18.43031	3.92400	6.7	188.84889	744.07626	3.94329
1.58	1.92569	7.27483	3.77789	2.8	4.91633	19.99927	3.92718	6.8	207.72720	819.11820	3.94330
1.59	1.93921	7.33283	3.78107	2.9	5.27029	22.00044	3.93029	6.9	228.50956	901.06828	3.94331
1.60	1.95273	7.39134	3.78359	3.0	5.63980	24.00000	3.93261	7.0	251.38912	991.28809	3.94332
1.61	1.96625	7.45037	3.78556	3.1	6.02513	26.00000	3.93451	7.1	276.57868	1090.51681	3.94333
1.62	1.97977	7.50992	3.78697	3.2	6.42629	28.00000	3.93607	7.2	304.32144	1199.79191	3.94334
1.63	1.99329	7.57000	3.78784	3.3	6.84344	31.00000	3.93736	7.3	334.64730	1320.58293	3.94335
1.64	2.00681	7.63062	3.78815	3.4	7.27682	34.00000	3.93841	7.4	368.47431	1452.38408	3.94336
1.65	2.02033	7.69178	3.78791	3.5	7.72659	37.00000	3.93928	7.5	405.50035	1598.98691	3.94337
1.66	2.03385	7.75348	3.78702	3.6	8.19241	41.00000	3.93999	7.6	446.27361	1759.76597	3.94338
1.67	2.04737	7.81573	3.78548	3.7	8.67442	45.00000	3.94058	7.7	491.17519	1936.02395	3.94339
1.68	2.06089	7.87854	3.78331	3.8	9.17213	49.00000	3.94106	7.8	540.62505	2131.81696	3.94340
1.69	2.07441	7.94192	3.78067	3.9	9.68599	54.00000	3.94145	7.9	595.08607	2346.57016	3.94341
1.70	2.08793	8.00586	3.78109	4.0	10.21781	59.00000	3.94177	8.0	655.06836	2593.09512	3.94342
1.71	2.10145	8.07037	3.78134	4.1	10.76779	64.00000	3.94204	8.1	721.13418	2883.00889	3.94343
1.72	2.11497	8.13541	3.78139	4.2	11.33546	71.00000	3.94226	8.2	793.50321	3210.55308	3.94344
1.73	2.12849	8.20115	3.78128	4.3	11.92097	78.00000	3.94243	8.3	872.55283	3574.95371	3.94345
1.74	2.14199	8.26742	3.782062	4.4	12.51431	85.00000	3.94258	8.4	962.55283	3974.95371	3.94346
1.75	2.15549	8.33429	3.78272	4.5	13.11444	93.00000	3.94270	8.5	1059.61611	4418.32639	3.94347
1.76	2.16899	8.40166	3.78311	4.6	13.72147	103.00000	3.94280	8.6	1166.61611	4900.33300	3.94348
1.77	2.18249	8.46964	3.78381	4.7	14.33533	113.00000	3.94288	8.7	1284.80185	5406.38910	3.94349
1.78	2.19599	8.53811	3.78488	4.8	14.95606	124.00000	3.94295	8.8	1414.84405	5949.07745	3.94350
1.79	2.20949	8.60711	3.78631	4.9	15.58344	136.00000	3.94300	8.9	1558.11484	6544.02939	3.94351
1.80	2.22299	8.67666	3.78807	5.0	16.21781	149.00000	3.94304	9.0	1715.96487	7206.7083	3.94352
1.81	2.23649	8.74678	3.78924	5.1	16.85844	164.00000	3.94308	9.1	1889.98308	7952.7307	3.94353
1.82	2.24999	8.81746	3.79071	5.2	17.50546	180.00000	3.94311	9.2	2081.51094	8797.0869	3.94354
1.83	2.26349	8.88871	3.79248	5.3	18.15844	199.00000	3.94313	9.3	2295.55120	9757.55379	3.94355
1.84	2.27699	8.96056	3.79455	5.4	18.81781	217.00000	3.94315	9.4	2525.55120	10848.90301	3.94356
1.85	2.29049	9.03292	3.79691	5.5	19.48344	238.00000	3.94317	9.5	2781.69411	12082.92298	3.94357
1.86	2.30399	9.10541	3.79956	5.6	20.15546	262.00000	3.94318	9.6	3064.20757	13310.55601	3.94358
1.87	2.31749	9.17811	3.80241	5.7	20.83344	288.00000	3.94320	9.7	3375.53310	14663.42546	3.94359
1.88	2.33099	9.25111	3.80546	5.8	21.51781	317.00000	3.94321	9.8	3718.61333	16154.34682	3.94360
1.89	2.34449	9.32441	3.80871	5.9	22.20844	348.00000	3.94321	9.9	4096.61333	17797.45024	3.94361
1.90	2.35799	9.39811	3.81216	6.0	22.90546	383.00000	3.94322	10.0	4513.40140	19797.45024	3.94362
1.91	2.37149	9.47211	3.81581								
1.92	2.38499	9.54641	3.81966								
1.93	2.39849	9.62111	3.82371								
1.94	2.41199	9.69611	3.82796								
1.95	2.42549	9.77141	3.83241								
1.96	2.43899	9.84711	3.83706								
1.97	2.45249	9.92311	3.84191								
1.98	2.46599	10.00041	3.84696								
1.99	2.47949	10.07811	3.85221								
2.00	2.49299	10.15641	3.85766								

TABLE 9B. Lanchester-Clifford-Schlafli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and $T_{\alpha}(x)$ for $\alpha = 4/5$ and x from 1.50 to 10.0.

x	$F_{2/7}(x)$	$H_{5/7}(x)$	$T_{2/7}(x)$	x	$F_{2/7}(x)$	$H_{5/7}(x)$	$T_{2/7}(x)$	x	$F_{2/7}(x)$	$H_{5/7}(x)$	$T_{2/7}(x)$
0.0	1.00000	0.0	0.0	0.50	1.23412	0.20034	0.16366	1.00	1.96323	0.59952	0.30537
0.1	1.00009	0.00072	0.00072	0.51	1.23470	0.20639	0.16733	1.01	1.98447	0.60980	0.30728
0.2	1.00035	0.00195	0.00194	0.52	1.23588	0.21251	0.17094	1.02	2.00599	0.62018	0.30916
0.3	1.00079	0.00347	0.00347	0.53	1.23757	0.21870	0.17460	1.03	2.02781	0.63067	0.31101
0.34	1.00140	0.00524	0.00523	0.54	1.23970	0.22497	0.17820	1.04	2.04993	0.64126	0.31282
0.35	1.00219	0.00720	0.00719	0.55	1.24226	0.23130	0.18176	1.05	2.07233	0.65197	0.31461
0.36	1.00329	0.01166	0.01166	0.56	1.24537	0.23771	0.18530	1.06	2.09505	0.66270	0.31639
0.37	1.00470	0.01741	0.01741	0.57	1.24903	0.24419	0.18880	1.07	2.11805	0.67340	0.31808
0.38	1.00649	0.02470	0.02470	0.58	1.25325	0.25073	0.19230	1.08	2.14137	0.68412	0.31977
0.39	1.00876	0.03385	0.03385	0.59	1.25803	0.25733	0.19572	1.09	2.16499	0.69588	0.32143
0.4	1.01151	0.04511	0.04511	0.60	1.26337	0.26408	0.19913	1.10	2.18892	0.70714	0.32306
0.41	1.01474	0.05875	0.05875	0.61	1.26927	0.27092	0.20251	1.11	2.21317	0.71852	0.32469
0.42	1.01848	0.07500	0.07500	0.62	1.27573	0.27786	0.20585	1.12	2.23773	0.73001	0.32632
0.43	1.02273	0.09406	0.09406	0.63	1.28275	0.28486	0.20916	1.13	2.26261	0.74162	0.32795
0.44	1.02750	0.11603	0.11603	0.64	1.29033	0.29185	0.21244	1.14	2.28781	0.75335	0.32958
0.45	1.03279	0.14100	0.14100	0.65	1.29847	0.29873	0.21567	1.15	2.31333	0.76519	0.33078
0.46	1.03859	0.16906	0.16906	0.66	1.30717	0.30589	0.21888	1.16	2.33918	0.77715	0.33224
0.47	1.04490	0.20031	0.20031	0.67	1.31643	0.31321	0.22206	1.17	2.36536	0.78925	0.33367
0.48	1.05172	0.23475	0.23475	0.68	1.32625	0.32077	0.22526	1.18	2.39188	0.80146	0.33508
0.49	1.05906	0.27248	0.27248	0.69	1.33663	0.32857	0.22846	1.19	2.41873	0.81380	0.33646
0.5	1.06692	0.31350	0.31350	0.70	1.34757	0.33650	0.23161	1.20	2.44592	0.82626	0.33781
0.51	1.07531	0.35791	0.35791	0.71	1.35907	0.34458	0.23473	1.21	2.47352	0.83886	0.33914
0.52	1.08424	0.40572	0.40572	0.72	1.37113	0.35285	0.23783	1.22	2.50152	0.85159	0.34045
0.53	1.09371	0.45695	0.45695	0.73	1.38375	0.36139	0.24092	1.23	2.52993	0.86441	0.34177
0.54	1.10372	0.51160	0.51160	0.74	1.39693	0.37020	0.24395	1.24	2.55873	0.87741	0.34299
0.55	1.11428	0.56975	0.56975	0.75	1.41066	0.37926	0.24691	1.25	2.58797	0.89052	0.34422
0.56	1.12540	0.63140	0.63140	0.76	1.42494	0.38857	0.24984	1.26	2.61766	0.90377	0.34543
0.57	1.13708	0.69655	0.69655	0.77	1.43977	0.39811	0.25278	1.27	2.64681	0.91715	0.34662
0.58	1.14933	0.76520	0.76520	0.78	1.45515	0.40788	0.25570	1.28	2.67642	0.93068	0.34778
0.59	1.16215	0.83735	0.83735	0.79	1.47107	0.41799	0.25861	1.29	2.70642	0.94434	0.34892
0.6	1.17554	0.91300	0.91300	0.80	1.48753	0.42836	0.26151	1.30	2.73718	0.95814	0.35004
0.61	1.18950	0.99215	0.99215	0.81	1.50455	0.43896	0.26439	1.31	2.76831	0.97208	0.35114
0.62	1.20403	1.07480	1.07480	0.82	1.52213	0.44984	0.26725	1.32	2.79983	0.98619	0.35223
0.63	1.21914	1.16095	1.16095	0.83	1.54027	0.46099	0.27005	1.33	2.83173	1.00039	0.35332
0.64	1.23483	1.25060	1.25060	0.84	1.55897	0.47241	0.27284	1.34	2.86401	1.01477	0.35442
0.65	1.25110	1.34375	1.34375	0.85	1.57823	0.48411	0.27559	1.35	2.89669	1.02929	0.35553
0.66	1.26794	1.44040	1.44040	0.86	1.59805	0.49609	0.27834	1.36	2.92975	1.04396	0.35663
0.67	1.28535	1.54055	1.54055	0.87	1.61843	0.50836	0.28108	1.37	2.96322	1.05878	0.35771
0.68	1.30333	1.64420	1.64420	0.88	1.63937	0.52093	0.28378	1.38	2.99709	1.07376	0.35877
0.69	1.32188	1.75135	1.75135	0.89	1.66086	0.53379	0.28648	1.39	3.03136	1.08889	0.35981
0.7	1.34099	1.86190	1.86190	0.90	1.68288	0.54693	0.28918	1.40	3.06605	1.10417	0.36083
0.71	1.36066	1.97595	1.97595	0.91	1.70543	0.56036	0.29188	1.41	3.10114	1.11973	0.36183
0.72	1.38089	2.09299	2.09299	0.92	1.72852	0.57408	0.29458	1.42	3.13663	1.13556	0.36283
0.73	1.40168	2.21403	2.21403	0.93	1.75215	0.58809	0.29728	1.43	3.17259	1.15169	0.36384
0.74	1.42303	2.33909	2.33909	0.94	1.77632	0.60241	0.29998	1.44	3.20895	1.16801	0.36484
0.75	1.44494	2.46815	2.46815	0.95	1.80103	0.61695	0.30268	1.45	3.24574	1.18450	0.36584
0.76	1.46741	2.60121	2.60121	0.96	1.82628	0.63171	0.30538	1.46	3.28297	1.19920	0.36684
0.77	1.49044	2.73827	2.73827	0.97	1.85207	0.64669	0.30808	1.47	3.32063	1.21500	0.36784
0.78	1.51403	2.87933	2.87933	0.98	1.87840	0.66190	0.31078	1.48	3.35874	1.23091	0.36884
0.79	1.53818	3.02439	3.02439	0.99	1.90527	0.67733	0.31348	1.49	3.39729	1.24693	0.36984
0.8	1.56289	3.17345	3.17345	1.00	1.93268	0.69298	0.31618	1.50	3.43629	1.26597	0.37084
0.81	1.58816	3.32651	3.32651								
0.82	1.61399	3.48357	3.48357								
0.83	1.64038	3.64463	3.64463								
0.84	1.66733	3.80969	3.80969								
0.85	1.69484	3.97875	3.97875								
0.86	1.72291	4.15181	4.15181								
0.87	1.75153	4.32887	4.32887								
0.88	1.78071	4.50993	4.50993								
0.89	1.81044	4.69499	4.69499								
0.9	1.84071	4.88395	4.88395								
0.91	1.87153	5.07681	5.07681								
0.92	1.90290	5.27357	5.27357								
0.93	1.93483	5.47423	5.47423								
0.94	1.96732	5.67879	5.67879								
0.95	1.99937	5.88725	5.88725								
0.96	2.03198	6.09961	6.09961								
0.97	2.06515	6.31587	6.31587								
0.98	2.09888	6.53603	6.53603								
0.99	2.13317	6.76009	6.76009								
1.0	2.16802	6.98805	6.98805								

TABLE 10A. Lanchester-Clifford-Schlafli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and

$T_{\alpha}(x)$ for $\alpha = 2/7$ and x from 0.00 to 1.50.

x	$F_{2/7}(x)$	$H_{5/7}(x)$	$T_{2/7}(x)$	x	$F_{2/7}(x)$	$H_{5/7}(x)$	$T_{2/7}(x)$	x	$F_{2/7}(x)$	$H_{5/7}(x)$	$T_{2/7}(x)$
1.50	3.43629	1.26597	0.36841	2.0	6.07544	2.38135	0.39196	6.0	442.81022	179.42086	0.40519
1.51	3.47575	1.26919	0.36915	2.1	6.80269	2.68307	0.39441	6.1	491.33142	199.08137	0.40519
1.52	3.51567	1.27244	0.36988	2.2	7.61814	3.01814	0.39641	6.2	545.12935	220.87995	0.40519
1.53	3.55606	1.27571	0.37059	2.3	8.51772	3.39030	0.39803	6.3	604.77059	245.04800	0.40519
1.54	3.59691	1.27898	0.37129	2.4	9.52461	3.80370	0.39935	6.4	670.90131	271.84186	0.40519
1.55	3.63824	1.28224	0.37197	2.5	10.64589	4.26296	0.40043	6.5	746.20885	301.57552	0.40519
1.56	3.68005	1.28551	0.37264	2.6	11.88502	4.77498	0.40131	6.6	832.55771	337.73237	0.40519
1.57	3.72234	1.28877	0.37330	2.7	13.24501	5.34980	0.40203	6.7	929.55771	379.73439	0.40519
1.58	3.76511	1.29204	0.37395	2.8	14.73114	5.98982	0.40268	6.8	1037.41081	428.35439	0.40519
1.59	3.80834	1.29531	0.37458	2.9	16.34948	6.69862	0.40308	6.9	1156.09024	483.68073	0.40519
1.60	3.85204	1.29858	0.37520	3.0	18.10578	7.48701	0.40347	7.0	1284.76448	545.98728	0.40519
1.61	3.89643	1.30185	0.37580	3.1	20.01578	8.36106	0.40379	7.1	1423.43833	615.07865	0.40519
1.62	3.94121	1.30512	0.37640	3.2	22.08417	9.32707	0.40404	7.2	1572.11592	692.13594	0.40519
1.63	3.98651	1.30839	0.37698	3.3	24.31556	10.38582	0.40426	7.3	1730.80279	778.1573	0.40519
1.64	4.03232	1.31166	0.37755	3.4	26.61380	11.53961	0.40443	7.4	1897.48712	873.19207	0.40519
1.65	4.07865	1.31493	0.37811	3.5	31.12390	12.83443	0.40457	7.5	2092.17865	978.29333	0.40519
1.66	4.12552	1.31820	0.37866	3.6	35.85255	14.27493	0.40469	7.6	2316.87465	1092.62357	0.40519
1.67	4.17282	1.32147	0.37919	3.7	40.81314	15.86172	0.40481	7.7	2571.68599	1225.09354	0.40519
1.68	4.22036	1.32474	0.37972	3.8	46.01554	17.59732	0.40493	7.8	2850.74013	1375.69354	0.40519
1.69	4.26834	1.32801	0.38024	3.9	51.46954	19.49463	0.40499	7.9	3159.94055	1544.43873	0.40519
1.70	4.31688	1.33128	0.38074	4.0	57.17945	21.55965	0.40496	8.0	3502.53428	1731.9463	0.40519
1.71	4.36597	1.33455	0.38124	4.1	63.15438	23.80130	0.40501	8.1	3882.11551	1949.19463	0.40519
1.72	4.41562	1.33782	0.38172	4.2	69.39933	26.22734	0.40504	8.2	4302.68555	2192.59279	0.40519
1.73	4.46588	1.34109	0.38220	4.3	75.92248	28.84542	0.40507	8.3	4768.59822	2471.43873	0.40519
1.74	4.51674	1.34436	0.38266	4.4	82.80993	31.65452	0.40509	8.4	5284.79068	2794.11433	0.40519
1.75	4.56821	1.34763	0.38312	4.5	90.06114	34.65965	0.40511	8.5	5856.64912	3169.95056	0.40519
1.76	4.62034	1.35090	0.38357	4.6	97.68714	37.8678	0.40512	8.6	6490.16508	3594.11433	0.40519
1.77	4.67312	1.35417	0.38401	4.7	105.69933	41.2863	0.40513	8.7	7191.95501	4071.41433	0.40519
1.78	4.72656	1.35744	0.38445	4.8	114.10933	44.9232	0.40515	8.8	7969.37115	4594.11433	0.40519
1.79	4.78065	1.36071	0.38489	4.9	122.92933	48.7863	0.40515	8.9	8830.53666	5171.41433	0.40519
1.80	4.83537	1.36398	0.38532	5.0	132.16933	52.8796	0.40516	9.0	9784.45041	5804.56982	0.40519
1.81	4.89074	1.36725	0.38576	5.1	141.82933	57.2063	0.40517	9.1	10841.07625	6492.70497	0.40519
1.82	4.94674	1.37052	0.38619	5.2	151.90933	61.7696	0.40517	9.2	12011.47627	7242.82821	0.40519
1.83	5.00337	1.37379	0.38663	5.3	162.40933	66.5793	0.40518	9.3	13307.77214	8066.92883	0.40519
1.84	5.06069	1.37706	0.38707	5.4	173.32933	71.6345	0.40518	9.4	14743.58670	8973.86857	0.40519
1.85	5.11874	1.38033	0.38751	5.5	184.66933	76.9452	0.40518	9.5	16333.85503	9973.86857	0.40519
1.86	5.17744	1.38360	0.38795	5.6	196.42933	82.5063	0.40518	9.6	18095.18451	11040.85413	0.40519
1.87	5.23674	1.38687	0.38839	5.7	208.60933	88.3263	0.40518	9.7	20045.84471	12222.59178	0.40519
1.88	5.29664	1.39014	0.38883	5.8	221.20933	94.4063	0.40518	9.8	22206.23412	13517.86857	0.40519
1.89	5.35714	1.39341	0.38927	5.9	234.22933	100.7463	0.40519	9.9	24598.82785	14947.86857	0.40519
1.90	5.41824	1.39668	0.38971	6.0	247.66933	107.3463	0.40519	10.0	27248.52692	17440.85413	0.40519
1.91	5.48004	1.40000	0.39015								
1.92	5.54244	1.40331	0.39059								
1.93	5.60544	1.40662	0.39103								
1.94	5.66904	1.40993	0.39147								
1.95	5.73324	1.41324	0.39191								
1.96	5.79804	1.41655	0.39235								
1.97	5.86344	1.41986	0.39279								
1.98	5.92944	1.42317	0.39323								
1.99	6.00004	1.42648	0.39367								
2.00	6.07544	1.42979	0.39411								

TABLE 10B. Lanchester-Clifford-Schlafli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and

$T_{\alpha}(x)$ for $\alpha = 2/7$ and x from 1.50 to 10.0.

x	$F_{3/7}(x)$	$H_{4/7}(x)$	$T_{3/7}(x)$	x	$F_{3/7}(x)$	$H_{4/7}(x)$	$T_{3/7}(x)$	x	$F_{3/7}(x)$	$H_{4/7}(x)$	$T_{3/7}(x)$
0.0	1.00000	0.00000	0.00000	0.50	1.19095	0.37325	0.32422	1.00	1.63616	0.92486	0.56526
0.01	1.00009	0.00010	0.00010	0.51	1.19125	0.37350	0.32471	1.01	1.65007	0.93826	0.56862
0.02	1.00023	0.00020	0.00020	0.52	1.19150	0.37375	0.32520	1.02	1.66416	0.95178	0.57193
0.03	1.00047	0.00040	0.00040	0.53	1.19172	0.37400	0.32569	1.03	1.67844	0.96541	0.57518
0.04	1.00073	0.00070	0.00070	0.54	1.19192	0.37425	0.32617	1.04	1.69291	0.97915	0.57838
0.05	1.00110	0.00110	0.00110	0.55	1.19218	0.37450	0.32666	1.05	1.70766	0.99301	0.58154
0.06	1.00146	0.00146	0.00146	0.56	1.19248	0.37475	0.32715	1.06	1.72274	1.00699	0.58474
0.07	1.00186	0.00186	0.00186	0.57	1.19278	0.37500	0.32764	1.07	1.73816	1.02107	0.58790
0.08	1.00237	0.00237	0.00237	0.58	1.19308	0.37525	0.32813	1.08	1.75392	1.03524	0.59104
0.09	1.00294	0.00294	0.00294	0.59	1.19332	0.37550	0.32862	1.09	1.76996	1.04950	0.59416
0.10	1.00361	0.00361	0.00361	0.60	1.19357	0.37575	0.32911	1.10	1.78631	1.06384	0.59726
0.11	1.00434	0.00434	0.00434	0.61	1.19382	0.37600	0.32960	1.11	1.80296	1.07827	0.60034
0.12	1.00517	0.00517	0.00517	0.62	1.19407	0.37625	0.33009	1.12	1.81991	1.09279	0.60340
0.13	1.00607	0.00607	0.00607	0.63	1.19432	0.37650	0.33058	1.13	1.83714	1.10739	0.60644
0.14	1.00704	0.00704	0.00704	0.64	1.19457	0.37675	0.33107	1.14	1.85464	1.12207	0.60946
0.15	1.00808	0.00808	0.00808	0.65	1.19482	0.37700	0.33156	1.15	1.87240	1.13682	0.61246
0.16	1.00919	0.00919	0.00919	0.66	1.19507	0.37725	0.33205	1.16	1.89042	1.15164	0.61543
0.17	1.01037	0.01037	0.01037	0.67	1.19532	0.37750	0.33254	1.17	1.90870	1.16653	0.61837
0.18	1.01162	0.01162	0.01162	0.68	1.19557	0.37775	0.33303	1.18	1.92724	1.18149	0.62128
0.19	1.01294	0.01294	0.01294	0.69	1.19582	0.37800	0.33352	1.19	1.94604	1.19652	0.62416
0.20	1.01434	0.01434	0.01434	0.70	1.19607	0.37825	0.33401	1.20	1.96508	1.21162	0.62701
0.21	1.01581	0.01581	0.01581	0.71	1.19632	0.37850	0.33450	1.21	1.98438	1.22679	0.62983
0.22	1.01735	0.01735	0.01735	0.72	1.19657	0.37875	0.33499	1.22	1.99994	1.24203	0.63262
0.23	1.01895	0.01895	0.01895	0.73	1.19682	0.37900	0.33548	1.23	2.01576	1.25734	0.63538
0.24	1.02062	0.02062	0.02062	0.74	1.19707	0.37925	0.33597	1.24	2.03184	1.27272	0.63811
0.25	1.02236	0.02236	0.02236	0.75	1.19732	0.37950	0.33646	1.25	2.04818	1.28817	0.64081
0.26	1.02417	0.02417	0.02417	0.76	1.19757	0.37975	0.33695	1.26	2.06478	1.30369	0.64348
0.27	1.02605	0.02605	0.02605	0.77	1.19782	0.38000	0.33744	1.27	2.08164	1.31928	0.64612
0.28	1.02799	0.02799	0.02799	0.78	1.19807	0.38025	0.33793	1.28	2.10008	1.33494	0.64872
0.29	1.02999	0.02999	0.02999	0.79	1.19832	0.38050	0.33842	1.29	2.11808	1.35067	0.65129
0.30	1.03205	0.03205	0.03205	0.80	1.19857	0.38075	0.33891	1.30	2.13664	1.36647	0.65382
0.31	1.03417	0.03417	0.03417	0.81	1.19882	0.38100	0.33940	1.31	2.15584	1.38234	0.65632
0.32	1.03635	0.03635	0.03635	0.82	1.19907	0.38125	0.33989	1.32	2.17568	1.39828	0.65879
0.33	1.03859	0.03859	0.03859	0.83	1.19932	0.38150	0.34038	1.33	2.19616	1.41429	0.66122
0.34	1.04089	0.04089	0.04089	0.84	1.19957	0.38175	0.34087	1.34	2.21728	1.43037	0.66362
0.35	1.04325	0.04325	0.04325	0.85	1.19982	0.38200	0.34136	1.35	2.23904	1.44652	0.66599
0.36	1.04567	0.04567	0.04567	0.86	1.20007	0.38225	0.34185	1.36	2.26144	1.46274	0.66832
0.37	1.04815	0.04815	0.04815	0.87	1.20032	0.38250	0.34234	1.37	2.28448	1.47903	0.67062
0.38	1.05069	0.05069	0.05069	0.88	1.20057	0.38275	0.34283	1.38	2.30816	1.49539	0.67289
0.39	1.05329	0.05329	0.05329	0.89	1.20082	0.38300	0.34332	1.39	2.33248	1.51182	0.67512
0.40	1.05595	0.05595	0.05595	0.90	1.20107	0.38325	0.34381	1.40	2.35736	1.52832	0.67731
0.41	1.05867	0.05867	0.05867	0.91	1.20132	0.38350	0.34430	1.41	2.38280	1.54487	0.67946
0.42	1.06145	0.06145	0.06145	0.92	1.20157	0.38375	0.34479	1.42	2.40888	1.56147	0.68157
0.43	1.06429	0.06429	0.06429	0.93	1.20182	0.38400	0.34528	1.43	2.43560	1.57812	0.68364
0.44	1.06719	0.06719	0.06719	0.94	1.20207	0.38425	0.34577	1.44	2.46296	1.59482	0.68567
0.45	1.07015	0.07015	0.07015	0.95	1.20232	0.38450	0.34626	1.45	2.49096	1.61157	0.68766
0.46	1.07317	0.07317	0.07317	0.96	1.20257	0.38475	0.34675	1.46	2.51960	1.62837	0.68961
0.47	1.07625	0.07625	0.07625	0.97	1.20282	0.38500	0.34724	1.47	2.54888	1.64522	0.69152
0.48	1.07939	0.07939	0.07939	0.98	1.20307	0.38525	0.34773	1.48	2.57880	1.66212	0.69339
0.49	1.08259	0.08259	0.08259	0.99	1.20332	0.38550	0.34822	1.49	2.60936	1.67907	0.69522
0.50	1.08585	0.08585	0.08585	1.00	1.20357	0.38575	0.34871	1.50	2.64056	1.69607	0.69701

TABLE 11A. Lanchester-Clifford-Schlafli Functions $F_\alpha(x)$, $H_{1-\alpha}(x)$, and

$T_\alpha(x)$ for $\alpha = 3/7$ and x from 0.00 to 1.50.

x	$F_{3/7}(x)$	$H_{4/7}(x)$	$T_{3/7}(x)$	x	$F_{3/7}(x)$	$H_{4/7}(x)$	$T_{3/7}(x)$	x	$F_{3/7}(x)$	$H_{4/7}(x)$	$T_{3/7}(x)$
1.50	2.59169	1.76254	0.68007	2.0	4.27065	3.10153	0.72624	6.0	252.71948	190.50872	0.75384
1.51	2.61706	1.78350	0.68149	2.1	4.72807	3.345728	0.73122	6.1	279.66387	203.82079	0.75384
1.52	2.64273	1.80466	0.68288	2.2	5.23811	3.585017	0.73531	6.2	309.47366	217.22292	0.75384
1.53	2.66868	1.82602	0.68424	2.3	5.80002	4.084427	0.73866	6.3	342.45309	231.54445	0.75384
1.54	2.69492	1.84759	0.68558	2.4	6.42668	4.76410	0.74142	6.4	378.93865	246.65902	0.75384
1.55	2.72145	1.86933	0.68690	2.5	7.11957	5.59466	0.74367	6.5	419.30250	262.59321	0.75384
1.56	2.74829	1.89129	0.68819	2.6	7.88383	6.59024	0.74522	6.6	463.73528	279.3722	0.75384
1.57	2.77545	1.91350	0.68948	2.7	8.72661	7.76024	0.74703	6.7	513.35555	297.04853	0.75384
1.58	2.80295	1.93602	0.69076	2.8	9.65661	9.11551	0.74827	6.8	568.00255	315.68453	0.75384
1.59	2.83059	1.95882	0.69199	2.9	10.67361	10.66247	0.74928	6.9	628.45650	335.37698	0.75384
1.60	2.85864	1.98135	0.69311	3.0	11.78347	12.40139	0.75011	7.0	695.33122	356.14032	0.75384
1.61	2.88699	2.00440	0.69424	3.1	12.98103	14.33085	0.75079	7.1	769.30895	378.00306	0.75384
1.62	2.91567	2.02766	0.69544	3.2	14.26103	16.46159	0.75134	7.2	850.42200	401.08815	0.75384
1.63	2.94466	2.05115	0.69657	3.3	15.62669	18.79175	0.75180	7.3	938.66633	425.40875	0.75384
1.64	2.97397	2.07487	0.69768	3.4	17.07915	21.32145	0.75217	7.4	1034.16008	450.97355	0.75384
1.65	3.00360	2.09881	0.69877	3.5	18.62328	24.05907	0.75247	7.5	1137.50733	477.78388	0.75384
1.66	3.03356	2.12293	0.69983	3.6	19.35328	26.99729	0.75272	7.6	1249.08733	505.84996	0.75384
1.67	3.06384	2.14729	0.70088	3.7	20.27600	30.13729	0.75293	7.7	1369.31974	535.196	0.75384
1.68	3.09447	2.17190	0.70193	3.8	21.39831	33.4844	0.75309	7.8	1498.73974	565.8396	0.75384
1.69	3.12542	2.19682	0.70297	3.9	22.62604	37.04113	0.75323	7.9	1637.83913	597.83913	0.75384
1.70	3.15672	2.22204	0.70391	4.0	23.95905	40.8186	0.75334	8.0	1787.14766	632.124	0.75384
1.71	3.18835	2.24741	0.70488	4.1	25.39835	44.8256	0.75343	8.1	1947.15180	667.8180	0.75384
1.72	3.22035	2.27302	0.70583	4.2	26.94552	49.0699	0.75351	8.2	2118.43543	704.93543	0.75384
1.73	3.25267	2.29888	0.70677	4.3	28.60397	53.55113	0.75357	8.3	2301.5137	743.5137	0.75384
1.74	3.28535	2.32499	0.70769	4.4	29.37614	58.2809	0.75362	8.4	2497.10505	783.7090	0.75384
1.75	3.31829	2.35136	0.70859	4.5	30.26443	63.2688	0.75366	8.5	2705.85663	825.5663	0.75384
1.76	3.35158	2.37799	0.70947	4.6	31.27047	68.4229	0.75369	8.6	2927.81387	869.81387	0.75384
1.77	3.38522	2.40490	0.71033	4.7	32.39533	73.7562	0.75372	8.7	3163.58118	916.58118	0.75384
1.78	3.41917	2.43212	0.71117	4.8	33.64000	79.2804	0.75374	8.8	3413.9112	965.9112	0.75384
1.79	3.45341	2.45962	0.71201	4.9	35.00443	85.0044	0.75376	8.9	3678.51021	1018.21	0.75384
1.80	3.48804	2.48710	0.71283	5.0	36.48959	90.9263	0.75378	9.0	3957.27920	1073.475	0.75384
1.81	3.52291	2.51464	0.71363	5.1	38.09505	97.0666	0.75379	9.1	4250.77235	1131.8272	0.75384
1.82	3.55811	2.54237	0.71442	5.2	39.82522	103.4362	0.75380	9.2	4559.7262	1193.2383	0.75384
1.83	3.59362	2.57027	0.71519	5.3	41.68097	110.0516	0.75381	9.3	4884.61905	1258.7190	0.75384
1.84	3.62931	2.60054	0.71595	5.4	43.66351	116.9184	0.75381	9.4	5226.51021	1328.3504	0.75384
1.85	3.66510	2.63280	0.71669	5.5	45.77427	124.0401	0.75382	9.5	5585.27920	1402.3037	0.75384
1.86	3.70127	2.66589	0.71742	5.6	47.91497	131.4202	0.75382	9.6	5961.74906	1480.6112	0.75384
1.87	3.73781	2.69985	0.71813	5.7	49.18659	139.0680	0.75383	9.7	6356.8612	1563.4512	0.75384
1.88	3.77473	2.73467	0.71883	5.8	50.59043	146.9952	0.75383	9.8	6770.55520	1650.9880	0.75384
1.89	3.81205	2.77033	0.71952	5.9	52.12855	155.2134	0.75383	9.9	7203.75660	1743.20173	0.75384
1.90	3.84969	2.80685	0.72019	6.0	53.80443	163.7407	0.75383	10.0	7657.55964	1840.34285	0.75384
1.91	3.88764	2.84420	0.72085								
1.92	3.92591	2.88237	0.72150								
1.93	3.96449	2.92137	0.72213								
1.94	4.00338	2.96120	0.72275								
1.95	4.04258	2.99999	0.72336								
1.96	4.08209	3.03976	0.72396								
1.97	4.12191	3.08051	0.72456								
1.98	4.16204	3.12124	0.72515								
1.99	4.20248	3.16295	0.72573								
2.00	4.24323	3.20466	0.72631								

TABLE 11B. Lanchester-Clifford-Schlafli Functions $F_\alpha(x)$, $H_{1-\alpha}(x)$, and $T_\alpha(x)$ for $\alpha = 3/7$ and x from 1.50 to 10.0.

x	$F_{4/7}(x)$	$F_{3/7}(x)$	$T_{4/7}(x)$	x	$F_{4/7}(x)$	$H_{3/7}(x)$	$T_{4/7}(x)$	x	$F_{4/7}(x)$	$H_{3/7}(x)$	$T_{4/7}(x)$
0.0	1.0000	0.0287	0.0287	0.50	1.1157	0.74260	0.69937	1.00	1.47395	1.25741	1.05279
0.01	1.00013	0.02895	0.02904	0.51	1.11677	0.74269	0.69938	1.01	1.47398	1.25743	1.05281
0.02	1.00027	0.02919	0.02932	0.52	1.11780	0.74278	0.69940	1.02	1.47401	1.25745	1.05283
0.03	1.00040	0.02942	0.02959	0.53	1.11886	0.74286	0.69943	1.03	1.47404	1.25747	1.05285
0.04	1.00053	0.02965	0.02985	0.54	1.11993	0.74293	0.69946	1.04	1.47407	1.25749	1.05287
0.05	1.00066	0.02988	0.03011	0.55	1.12100	0.74300	0.69949	1.05	1.47410	1.25751	1.05289
0.06	1.00079	0.03011	0.03037	0.56	1.12207	0.74307	0.69952	1.06	1.47413	1.25753	1.05291
0.07	1.00092	0.03034	0.03063	0.57	1.12314	0.74314	0.69955	1.07	1.47416	1.25755	1.05293
0.08	1.00105	0.03057	0.03089	0.58	1.12421	0.74321	0.69958	1.08	1.47419	1.25757	1.05295
0.09	1.00118	0.03080	0.03115	0.59	1.12528	0.74328	0.69961	1.09	1.47422	1.25759	1.05297
0.10	1.00131	0.03103	0.03141	0.60	1.12635	0.74335	0.69964	1.10	1.47425	1.25761	1.05299
0.11	1.00144	0.03126	0.03167	0.61	1.12742	0.74342	0.69967	1.11	1.47428	1.25763	1.05301
0.12	1.00157	0.03149	0.03193	0.62	1.12849	0.74349	0.69970	1.12	1.47431	1.25765	1.05303
0.13	1.00170	0.03172	0.03219	0.63	1.12956	0.74356	0.69973	1.13	1.47434	1.25767	1.05305
0.14	1.00183	0.03195	0.03245	0.64	1.13063	0.74363	0.69976	1.14	1.47437	1.25769	1.05307
0.15	1.00196	0.03218	0.03271	0.65	1.13170	0.74370	0.69979	1.15	1.47440	1.25771	1.05309
0.16	1.00209	0.03241	0.03297	0.66	1.13277	0.74377	0.69982	1.16	1.47443	1.25773	1.05311
0.17	1.00222	0.03264	0.03323	0.67	1.13384	0.74384	0.69985	1.17	1.47446	1.25775	1.05313
0.18	1.00235	0.03287	0.03349	0.68	1.13491	0.74391	0.69988	1.18	1.47449	1.25777	1.05315
0.19	1.00248	0.03310	0.03375	0.69	1.13598	0.74398	0.69991	1.19	1.47452	1.25779	1.05317
0.20	1.00261	0.03333	0.03401	0.70	1.13705	0.74405	0.69994	1.20	1.47455	1.25781	1.05319
0.21	1.00274	0.03356	0.03427	0.71	1.13812	0.74412	0.69997	1.21	1.47458	1.25783	1.05321
0.22	1.00287	0.03379	0.03453	0.72	1.13919	0.74419	0.69999	1.22	1.47461	1.25785	1.05323
0.23	1.00300	0.03402	0.03479	0.73	1.14026	0.74426	0.70002	1.23	1.47464	1.25787	1.05325
0.24	1.00313	0.03425	0.03505	0.74	1.14133	0.74433	0.70005	1.24	1.47467	1.25789	1.05327
0.25	1.00326	0.03448	0.03531	0.75	1.14240	0.74440	0.70008	1.25	1.47470	1.25791	1.05329
0.26	1.00339	0.03471	0.03557	0.76	1.14347	0.74447	0.70011	1.26	1.47473	1.25793	1.05331
0.27	1.00352	0.03494	0.03583	0.77	1.14454	0.74454	0.70014	1.27	1.47476	1.25795	1.05333
0.28	1.00365	0.03517	0.03609	0.78	1.14561	0.74461	0.70017	1.28	1.47479	1.25797	1.05335
0.29	1.00378	0.03540	0.03635	0.79	1.14668	0.74468	0.70020	1.29	1.47482	1.25799	1.05337
0.30	1.00391	0.03563	0.03661	0.80	1.14775	0.74475	0.70023	1.30	1.47485	1.25801	1.05339
0.31	1.00404	0.03586	0.03687	0.81	1.14882	0.74482	0.70026	1.31	1.47488	1.25803	1.05341
0.32	1.00417	0.03609	0.03713	0.82	1.14989	0.74489	0.70029	1.32	1.47491	1.25805	1.05343
0.33	1.00430	0.03632	0.03739	0.83	1.15096	0.74496	0.70032	1.33	1.47494	1.25807	1.05345
0.34	1.00443	0.03655	0.03765	0.84	1.15203	0.74503	0.70035	1.34	1.47497	1.25809	1.05347
0.35	1.00456	0.03678	0.03791	0.85	1.15310	0.74510	0.70038	1.35	1.47500	1.25811	1.05349
0.36	1.00469	0.03701	0.03817	0.86	1.15417	0.74517	0.70041	1.36	1.47503	1.25813	1.05351
0.37	1.00482	0.03724	0.03843	0.87	1.15524	0.74524	0.70044	1.37	1.47506	1.25815	1.05353
0.38	1.00495	0.03747	0.03869	0.88	1.15631	0.74531	0.70047	1.38	1.47509	1.25817	1.05355
0.39	1.00508	0.03770	0.03895	0.89	1.15738	0.74538	0.70050	1.39	1.47512	1.25819	1.05357
0.40	1.00521	0.03793	0.03921	0.90	1.15845	0.74545	0.70053	1.40	1.47515	1.25821	1.05359
0.41	1.00534	0.03816	0.03947	0.91	1.15952	0.74552	0.70056	1.41	1.47518	1.25823	1.05361
0.42	1.00547	0.03839	0.03973	0.92	1.16059	0.74559	0.70059	1.42	1.47521	1.25825	1.05363
0.43	1.00560	0.03862	0.04000	0.93	1.16166	0.74566	0.70062	1.43	1.47524	1.25827	1.05365
0.44	1.00573	0.03885	0.04026	0.94	1.16273	0.74573	0.70065	1.44	1.47527	1.25829	1.05367
0.45	1.00586	0.03908	0.04052	0.95	1.16380	0.74580	0.70068	1.45	1.47530	1.25831	1.05369
0.46	1.00599	0.03931	0.04078	0.96	1.16487	0.74587	0.70071	1.46	1.47533	1.25833	1.05371
0.47	1.00612	0.03954	0.04104	0.97	1.16594	0.74594	0.70074	1.47	1.47536	1.25835	1.05373
0.48	1.00625	0.03977	0.04130	0.98	1.16701	0.74601	0.70077	1.48	1.47539	1.25837	1.05375
0.49	1.00638	0.03999	0.04156	0.99	1.16808	0.74608	0.70080	1.49	1.47542	1.25839	1.05377
0.50	1.00651	0.04022	0.04182	1.00	1.16915	0.74615	0.70083	1.50	1.47545	1.25841	1.05379

TABLE 12A. Lanchester-Clifford-Schlöfli Functions $F_\alpha(x)$, $H_{1-\alpha}(x)$, and

$T_\alpha(x)$ for $\alpha = 4/7$ and x from 0.00 to 1.50.

x	$F_{4/7}(x)$	$H_{3/7}(x)$	$T_{4/7}(x)$	x	$F_{4/7}(x)$	$H_{3/7}(x)$	$T_{4/7}(x)$	x	$F_{4/7}(x)$	$H_{3/7}(x)$	$T_{4/7}(x)$
1.50	2.17393	2.65233	1.20944	2.0	3.38428	4.33755	1.28168	6.0	164.99174	218.86467	1.32653
1.51	2.19233	2.65233	1.21167	2.1	3.71076	4.78518	1.28962	6.1	182.10855	251.57070	1.32653
1.52	2.21105	2.65233	1.21407	2.2	4.07160	5.27181	1.29619	6.2	201.00541	266.63852	1.32653
1.53	2.22992	2.71132	1.21588	2.3	4.47160	5.80201	1.30159	6.3	221.86839	294.31420	1.32653
1.54	2.24900	2.73317	1.21795	2.4	4.91330	6.37102	1.30605	6.4	244.90215	324.86946	1.32653
1.55	2.26828	2.76127	1.21999	2.5	5.40141	7.07432	1.30972	6.5	270.33290	358.60439	1.32653
1.56	2.28778	2.79472	1.22199	2.6	5.92655	7.90848	1.31273	6.6	298.41044	395.85037	1.32653
1.57	2.30747	2.82623	1.22395	2.7	6.49323	8.95651	1.31521	6.7	329.41064	436.97735	1.32653
1.58	2.32739	2.85309	1.22587	2.8	7.10061	10.24614	1.31725	6.8	363.42919	482.97344	1.32653
1.59	2.34752	2.88220	1.22777	2.9	7.75006	11.80450	1.31892	6.9	401.42949	532.55907	1.32653
1.60	2.36787	2.91158	1.22962	3.0	8.44271	13.65135	1.32029	7.0	443.15614	587.86102	1.32653
1.61	2.38843	2.94125	1.23145	3.1	9.18066	15.80664	1.32141	7.1	489.22847	648.97766	1.32653
1.62	2.40922	2.97114	1.23324	3.2	10.05834	18.29486	1.32234	7.2	540.09905	716.46013	1.32653
1.63	2.43025	3.00133	1.23500	3.3	11.06155	21.16911	1.32309	7.3	596.72016	790.91723	1.32653
1.64	2.45146	3.03178	1.23673	3.4	12.185148	24.48148	1.32372	7.4	658.429272	873.24746	1.32653
1.65	2.47292	3.06252	1.23842	3.5	13.43719	28.24216	1.32422	7.5	726.77774	964.09527	1.32653
1.66	2.49460	3.09353	1.24009	3.6	14.81420	32.45426	1.32464	7.6	802.99371	1064.41005	1.32653
1.67	2.51652	3.12483	1.24172	3.7	16.31925	37.12054	1.32498	7.7	889.99939	1174.94274	1.32653
1.68	2.53867	3.15641	1.24333	3.8	17.95725	42.15691	1.32526	7.8	987.91039	1297.45424	1.32653
1.69	2.56106	3.18828	1.24491	3.9	20.732169	47.67747	1.32549	7.9	1097.92621	1432.55915	1.32653
1.70	2.58369	3.22044	1.24645	4.0	23.74805	53.69350	1.32568	8.0	1192.35862	1581.70466	1.32653
1.71	2.60654	3.25289	1.24797	4.1	26.91330	60.12066	1.32584	8.1	1316.51334	1746.40024	1.32653
1.72	2.62965	3.28565	1.24949	4.2	30.23654	67.91264	1.32596	8.2	1453.61333	1938.26881	1.32653
1.73	2.65300	3.31871	1.25103	4.3	33.715206	74.09393	1.32607	8.3	1605.01111	2159.10284	1.32653
1.74	2.67659	3.35207	1.25247	4.4	37.367360	81.68325	1.32615	8.4	1772.19815	2350.89200	1.32653
1.75	2.70043	3.38573	1.25378	4.5	41.195443	89.69350	1.32622	8.5	1956.82244	2595.70281	1.32653
1.76	2.72452	3.41971	1.25516	4.6	45.205072	97.91264	1.32628	8.6	2159.46323	2866.50176	1.32653
1.77	2.74887	3.45401	1.25652	4.7	49.405657	106.34264	1.32632	8.7	2389.46974	3166.70109	1.32653
1.78	2.77347	3.48862	1.25785	4.8	53.80651	115.11471	1.32636	8.8	2649.08016	3498.9625	1.32653
1.79	2.79832	3.52355	1.25916	4.9	58.41521	124.24264	1.32639	8.9	2909.08016	3868.9625	1.32653
1.80	2.82347	3.55880	1.26045	5.0	61.58180	133.65857	1.32642	9.0	3172.31536	4261.24747	1.32653
1.81	2.84887	3.59339	1.26171	5.1	67.95008	147.05587	1.32644	9.1	3547.19334	4705.47498	1.32653
1.82	2.87447	3.62730	1.26295	5.2	74.57338	162.94230	1.32646	9.2	3917.02016	5196.06282	1.32653
1.83	2.90033	3.66155	1.26416	5.3	82.47338	179.57138	1.32647	9.3	4325.44559	5737.83118	1.32653
1.84	2.92659	3.69603	1.26536	5.4	91.70317	198.29760	1.32648	9.4	4776.50131	6336.19435	1.32653
1.85	2.95301	3.73077	1.26653	5.5	100.76094	218.86467	1.32649	9.5	5274.64079	6966.79564	1.32653
1.86	2.97974	3.76573	1.26768	5.6	111.15932	240.50587	1.32650	9.6	5832.59608	7709.71759	1.32653
1.87	3.00675	3.80107	1.26880	5.7	122.42823	264.94230	1.32651	9.7	6452.39608	8559.71759	1.32653
1.88	3.03403	3.83675	1.26991	5.8	134.44350	292.76172	1.32652	9.8	7140.37220	9445.89232	1.32653
1.89	3.06165	3.87285	1.27100	5.9	147.48159	324.50587	1.32653	9.9	7844.44689	10445.89232	1.32653
1.90	3.08945	3.90937	1.27206	6.0	164.99174	362.46467	1.32652	10.0	8662.91020	11491.65041	1.32653
1.91	3.11760	3.94603	1.27311								
1.92	3.14603	3.98285	1.27413								
1.93	3.17475	4.01995	1.27514								
1.94	3.20377	4.05842	1.27613								
1.95	3.23309	4.09827	1.27710								
1.96	3.26272	4.13951	1.27805								
1.97	3.29264	4.18213	1.27898								
1.98	3.32288	4.22594	1.27990								
1.99	3.35342	4.27079	1.28079								
2.00	3.38428	4.31755	1.28168								

TABLE 12B. Lanchester-Clifford-Schlafli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and

$T_{\alpha}(x)$ for $\alpha = 4/7$ and x from 1.50 to 10.0.

x	$F_{5/7}(x)$	$H_{2/7}(x)$	$T_{5/7}(x)$	x	$F_{5/7}(x)$	$H_{2/7}(x)$	$T_{5/7}(x)$	x	$F_{5/7}(x)$	$H_{2/7}(x)$	$T_{5/7}(x)$
0.0	1.00000	0.0	0.0	0.50	1.08911	1.66313	1.2705	1.0	1.3632	2.9390	2.06275
0.01	1.00004	0.16951	0.16951	0.51	1.09578	1.85225	1.4221	1.01	1.3674	2.95019	2.06279
0.02	1.00019	0.25191	0.25191	0.52	1.10325	1.97447	1.5714	1.02	1.3727	2.96143	2.06283
0.03	1.00036	0.31742	0.31742	0.53	1.11093	1.72957	1.58632	1.03	1.40993	2.96609	2.06287
0.04	1.00056	0.37442	0.37442	0.54	1.11893	1.79596	1.6005	1.04	1.42666	2.97075	2.06291
0.05	1.00088	0.42723	0.42723	0.55	1.12729	1.81810	1.61494	1.05	1.44357	2.97541	2.06295
0.06	1.00124	0.47595	0.47595	0.56	1.13606	1.84026	1.62849	1.06	1.46061	2.98007	2.06299
0.07	1.00164	0.51985	0.51985	0.57	1.14526	1.86244	1.64212	1.07	1.47779	2.98473	2.06303
0.08	1.00208	0.55988	0.55988	0.58	1.15489	1.88467	1.65556	1.08	1.49512	2.98939	2.06307
0.09	1.00256	0.63309	0.63309	0.59	1.16497	1.90697	1.66879	1.09	1.51260	2.99405	2.06311
0.1	1.00320	0.66808	0.66808	0.60	1.17549	1.92934	1.68183	1.1	1.53025	3.00000	2.06315
0.11	1.00424	0.69808	0.69808	0.61	1.18644	1.95179	1.69467	1.11	1.54808	3.00568	2.06319
0.12	1.00505	0.70211	0.70211	0.62	1.19786	1.97424	1.70732	1.12	1.56609	3.01134	2.06323
0.13	1.00592	0.73348	0.73348	0.63	1.20974	1.99673	1.71979	1.13	1.58427	3.01703	2.06327
0.14	1.00687	0.76814	0.76814	0.64	1.22215	2.01924	1.73207	1.14	1.60262	3.02273	2.06331
0.15	1.00789	0.80010	0.80010	0.65	1.23509	2.04179	1.74429	1.15	1.62112	3.02844	2.06335
0.16	1.00898	0.83366	0.83366	0.66	1.24857	2.06439	1.75639	1.16	1.63979	3.03416	2.06339
0.17	1.01014	0.86369	0.86369	0.67	1.26259	2.08703	1.76832	1.17	1.65862	3.03989	2.06343
0.18	1.01137	0.88664	0.88664	0.68	1.27715	2.10972	1.78019	1.18	1.67761	3.04563	2.06347
0.19	1.01267	0.91124	0.91124	0.69	1.29226	2.13246	1.79193	1.19	1.69676	3.05138	2.06351
0.2	1.01404	0.94426	0.94426	0.70	1.30792	2.15524	1.80364	1.2	1.71606	3.05714	2.06355
0.21	1.01548	0.97779	0.97779	0.71	1.32414	2.17807	1.81533	1.21	1.73551	3.06291	2.06359
0.22	1.01700	1.00966	1.00966	0.72	1.34092	2.20094	1.82697	1.22	1.75511	3.06868	2.06363
0.23	1.01859	1.02750	1.02750	0.73	1.35826	2.22385	1.83857	1.23	1.77486	3.07445	2.06367
0.24	1.02024	1.05335	1.05335	0.74	1.37616	2.24681	1.85012	1.24	1.79476	3.08022	2.06371
0.25	1.02197	1.07964	1.07964	0.75	1.39462	2.26982	1.86163	1.25	1.81481	3.08600	2.06375
0.26	1.02378	1.10620	1.10620	0.76	1.41364	2.29288	1.87310	1.26	1.83501	3.09178	2.06379
0.27	1.02565	1.13345	1.13345	0.77	1.43322	2.31599	1.88453	1.27	1.85536	3.09757	2.06383
0.28	1.02756	1.15452	1.15452	0.78	1.45337	2.33915	1.89591	1.28	1.87585	3.10336	2.06387
0.29	1.02952	1.18012	1.18012	0.79	1.47409	2.36236	1.90725	1.29	1.89648	3.10916	2.06391
0.3	1.03171	1.20458	1.20458	0.80	1.49546	2.38562	1.91859	1.3	1.91725	3.11497	2.06395
0.31	1.03387	1.22880	1.22880	0.81	1.51749	2.40893	1.92983	1.31	1.93818	3.12079	2.06399
0.32	1.03611	1.25282	1.25282	0.82	1.54017	2.43229	1.94103	1.32	1.95926	3.12662	2.06403
0.33	1.03842	1.27664	1.27664	0.83	1.56350	2.45570	1.95219	1.33	1.98049	3.13246	2.06407
0.34	1.04080	1.30029	1.30029	0.84	1.58749	2.47916	1.96332	1.34	1.99999	3.13831	2.06411
0.35	1.04326	1.32376	1.32376	0.85	1.61214	2.50267	1.97442	1.35	2.01976	3.14417	2.06415
0.36	1.04579	1.34708	1.34708	0.86	1.63745	2.52623	1.98553	1.36	2.03979	3.15004	2.06419
0.37	1.04840	1.37026	1.37026	0.87	1.66342	2.54984	1.99659	1.37	2.05997	3.15592	2.06423
0.38	1.05107	1.39331	1.39331	0.88	1.68996	2.57350	2.00761	1.38	2.08031	3.16181	2.06427
0.39	1.05383	1.41624	1.41624	0.89	1.71719	2.59721	2.01859	1.39	2.10080	3.16771	2.06431
0.4	1.05666	1.43905	1.43905	0.90	1.74514	2.62100	2.02953	1.4	2.12143	3.17362	2.06435
0.41	1.05956	1.46177	1.46177	0.91	1.77381	2.64484	2.04043	1.41	2.14220	3.17954	2.06439
0.42	1.06254	1.48440	1.48440	0.92	1.80320	2.66873	2.05129	1.42	2.16311	3.18547	2.06443
0.43	1.06559	1.50694	1.50694	0.93	1.83332	2.69267	2.06211	1.43	2.18416	3.19141	2.06447
0.44	1.06872	1.52942	1.52942	0.94	1.86417	2.71666	2.07289	1.44	2.20534	3.19736	2.06451
0.45	1.07193	1.55187	1.55187	0.95	1.89576	2.74070	2.08363	1.45	2.22665	3.20331	2.06455
0.46	1.07521	1.57417	1.57417	0.96	1.92809	2.76479	2.09434	1.46	2.24809	3.20927	2.06459
0.47	1.07857	1.59647	1.59647	0.97	1.96117	2.78893	2.10501	1.47	2.26966	3.21524	2.06463
0.48	1.08200	1.61872	1.61872	0.98	1.99500	2.81312	2.11563	1.48	2.29136	3.22121	2.06467
0.49	1.08552	1.64094	1.64094	0.99	2.02958	2.83736	2.12621	1.49	2.31319	3.22719	2.06471
0.5	1.08911	1.66313	1.66313	1.00	2.06492	2.86165	2.13675	1.5	2.33514	3.23318	2.06475

TABLE 13A. Lanchester-Clifford-Schlafli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and $T_{\alpha}(x)$ for $\alpha = 5/7$ and x from 0.00 to 1.50.

$\alpha = 5/7$

x	$F_{5/7}(x)$	$H_{2/7}(x)$	$T_{5/7}(x)$	x	$F_{5/7}(x)$	$H_{2/7}(x)$	$T_{5/7}(x)$	x	$F_{5/7}(x)$	$H_{2/7}(x)$	$T_{5/7}(x)$
1.50	1.92597	4.43785	2.30422	2.0	2.86200	6.88178	2.40453	6.0	116.54607	287.42985	2.46795
1.51	1.94037	4.46037	2.30724	2.1	3.11226	7.51817	2.41566	6.1	128.31133	316.46644	2.46795
1.52	1.95492	4.48127	2.31021	2.2	3.38330	8.21618	2.42487	6.2	141.27352	348.56644	2.46795
1.53	1.96968	4.50158	2.31313	2.3	3.67660	8.98218	2.43287	6.3	155.55637	383.90666	2.46796
1.54	1.98448	4.52164	2.31599	2.4	4.02189	9.82310	2.43877	6.4	171.129339	422.74565	2.46796
1.55	1.99950	4.54145	2.31881	2.5	4.39221	10.74658	2.44395	6.5	188.63415	465.52233	2.46796
1.56	2.01467	4.56097	2.32157	2.6	4.80889	11.76102	2.44823	6.6	207.74267	512.70180	2.46797
1.57	2.02990	4.58026	2.32436	2.7	5.26161	12.86592	2.45175	6.7	229.09297	564.57077	2.46797
1.58	2.04527	4.59932	2.32719	2.8	5.75262	14.06032	2.45452	6.8	253.09297	621.57483	2.46797
1.59	2.06110	4.61813	2.32998	2.9	6.28362	15.34688	2.45653	6.9	277.57915	685.08119	2.46797
1.60	2.07699	4.63673	2.33275	3.0	6.85371	16.72695	2.45788	7.0	305.76595	754.91886	2.46797
1.61	2.09297	4.65510	2.33549	3.1	7.46355	18.20424	2.45860	7.1	337.28291	831.28444	2.46797
1.62	2.10912	4.67325	2.33820	3.2	8.11332	20.34362	2.45912	7.2	371.06741	915.79346	2.46797
1.63	2.12544	4.69116	2.34089	3.3	8.80363	22.31145	2.46301	7.3	408.80519	1008.91936	2.46797
1.64	2.14199	4.70883	2.34356	3.4	9.53375	24.47155	2.46390	7.4	450.40159	1111.51821	2.46797
1.65	2.15859	4.72626	2.34621	3.5	10.31372	26.85938	2.46463	7.5	496.25277	1224.73724	2.46797
1.66	2.17523	4.74344	2.34885	3.6	11.14326	29.45220	2.46523	7.6	546.52453	1349.47425	2.46797
1.67	2.19192	4.76037	2.35148	3.7	12.02242	32.35288	2.46572	7.7	601.52099	1487.58246	2.46797
1.68	2.20866	4.77705	2.35409	3.8	12.95133	35.56268	2.46613	7.8	661.65994	1639.68482	2.46797
1.69	2.22544	4.79348	2.35666	3.9	13.93030	39.09157	2.46646	7.9	727.16394	1805.68482	2.46797
1.70	2.24223	4.80966	2.35919	4.0	14.96043	42.85220	2.46673	8.0	806.28500	1989.89904	2.46797
1.71	2.25903	4.82559	2.36170	4.1	16.04263	47.07602	2.46696	8.1	888.58031	2192.99140	2.46797
1.72	2.27584	4.84127	2.36419	4.2	17.17704	51.72464	2.46714	8.2	979.34431	2416.91242	2.46797
1.73	2.29266	4.85673	2.36666	4.3	18.36387	56.84113	2.46729	8.3	1079.34431	2663.79257	2.46797
1.74	2.30949	4.87196	2.36911	4.4	19.60320	62.47294	2.46741	8.4	1189.63759	2935.99288	2.46797
1.75	2.32633	4.88696	2.37154	4.5	20.89572	68.67241	2.46751	8.5	1311.24544	3236.11779	2.46797
1.76	2.34318	4.90173	2.37396	4.6	22.24238	75.47716	2.46760	8.6	1445.31133	3569.09188	2.46797
1.77	2.35999	4.91626	2.37637	4.7	23.64388	82.91732	2.46767	8.7	1593.51133	3934.58075	2.46797
1.78	2.37676	4.93055	2.37876	4.8	25.09916	91.03158	2.46772	8.8	1756.56211	4334.28075	2.46797
1.79	2.39349	4.94459	2.38116	4.9	26.60816	100.39158	2.46777	8.9	1935.56211	4777.99140	2.46797
1.80	2.41017	4.95838	2.38353	5.0	28.17148	110.42108	2.46780	9.0	2134.21954	5267.19550	2.46797
1.81	2.42680	4.97192	2.38587	5.1	29.79045	121.46542	2.46783	9.1	2352.82441	5806.70635	2.46797
1.82	2.44338	4.98523	2.38819	5.2	31.46541	133.62794	2.46786	9.2	2593.89443	6401.69157	2.46797
1.83	2.45991	4.99832	2.39049	5.3	33.19744	147.02256	2.46788	9.3	2859.74534	7057.71317	2.46797
1.84	2.47639	5.01121	2.39276	5.4	35.55171	161.77184	2.46790	9.4	3152.92902	7781.34273	2.46797
1.85	2.49282	5.02390	2.39501	5.5	37.53221	178.02323	2.46791	9.5	3476.26399	8579.33242	2.46797
1.86	2.50920	5.03640	2.39723	5.6	39.14967	195.23032	2.46792	9.6	3832.13230	9459.88236	2.46797
1.87	2.52553	5.04873	2.39942	5.7	40.40388	213.92736	2.46793	9.7	4222.13230	10439.88236	2.46797
1.88	2.54181	5.06090	2.40159	5.8	41.29772	233.72736	2.46794	9.8	4645.88335	11560.12386	2.46797
1.89	2.55804	5.07291	2.40374	5.9	41.83711	255.12416	2.46794	9.9	5138.27555	12801.12386	2.46797
1.90	2.57422	5.08477	2.40588	6.0	42.02200	287.62985	2.46795	10.0	5665.91613	13983.32643	2.46797
1.91	2.59035	5.09647	2.40799								
1.92	2.60643	5.10800	2.41006								
1.93	2.62246	5.11937	2.41210								
1.94	2.63844	5.13059	2.41411								
1.95	2.65437	5.14166	2.41609								
1.96	2.67025	5.15258	2.41804								
1.97	2.68608	5.16335	2.42000								
1.98	2.70186	5.17397	2.42193								
1.99	2.71759	5.18444	2.42384								
2.00	2.73327	5.19476	2.42572								

TABLE 13B. Lanchester-Clifford-Schlafli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and

$T_{\alpha}(x)$ for $\alpha = 5/7$ and x from 1.50 to 10.0.

x	$F_{4/9}(x)$	$H_{5/9}(x)$	$T_{4/9}(x)$	x	$F_{4/9}(x)$	$H_{5/9}(x)$	$T_{4/9}(x)$	x	$F_{4/9}(x)$	$H_{5/9}(x)$	$T_{4/9}(x)$
0.0	1.00000	0.0	0.0	0.50	1.14369	0.40145	0.35101	1.00	1.61287	0.97391	0.60384
0.01	1.00006	0.00300	0.00300	0.51	1.14963	0.41104	0.35754	1.01	1.62266	0.98774	0.60737
0.02	1.00023	0.01079	0.01079	0.52	1.15669	0.42069	0.36401	1.02	1.63282	1.00168	0.61085
0.03	1.00051	0.01793	0.01793	0.53	1.16488	0.43040	0.37043	1.03	1.64339	1.01597	0.61421
0.04	1.00090	0.02332	0.02329	0.54	1.17421	0.44017	0.37679	1.04	1.65429	1.03074	0.61764
0.05	1.00141	0.02988	0.02984	0.55	1.18466	0.45001	0.38310	1.05	1.66559	1.04601	0.62094
0.06	1.00203	0.03660	0.03652	0.56	1.19624	0.45992	0.38933	1.06	1.67722	1.06176	0.62423
0.07	1.00276	0.04347	0.04332	0.57	1.20900	0.46993	0.39549	1.07	1.68928	1.07801	0.62744
0.08	1.00359	0.05047	0.05025	0.58	1.22293	0.47993	0.40157	1.08	1.70163	1.09476	0.63061
0.09	1.00450	0.05767	0.05720	0.59	1.23803	0.48993	0.40755	1.09	1.71437	1.11201	0.63372
0.10	1.00561	0.06496	0.06426	0.60	1.25430	0.50020	0.41347	1.10	1.72750	1.12976	0.63678
0.11	1.00681	0.07187	0.07138	0.61	1.27174	0.51044	0.41933	1.11	1.74103	1.14801	0.63980
0.12	1.00811	0.07855	0.07855	0.62	1.29033	0.52075	0.42515	1.12	1.75496	1.16676	0.64276
0.13	1.00952	0.08509	0.08577	0.63	1.30906	0.53113	0.43093	1.13	1.76933	1.18601	0.64568
0.14	1.01104	0.09146	0.09303	0.64	1.32893	0.54159	0.43667	1.14	1.78416	1.20576	0.64855
0.15	1.01268	0.10160	0.10233	0.65	1.34993	0.55211	0.44237	1.15	1.79943	1.22601	0.65137
0.16	1.01443	0.11260	0.11266	0.66	1.37214	0.56274	0.44803	1.16	1.81516	1.24676	0.65415
0.17	1.01629	0.12446	0.12446	0.67	1.39557	0.57347	0.45365	1.17	1.83133	1.26801	0.65688
0.18	1.01826	0.13717	0.13717	0.68	1.42022	0.58420	0.45923	1.18	1.84796	1.28976	0.65956
0.19	1.02033	0.15071	0.15071	0.69	1.44613	0.59493	0.46477	1.19	1.86503	1.31201	0.66220
0.20	1.02250	0.16518	0.16518	0.70	1.47326	0.60566	0.47027	1.20	1.88256	1.33476	0.66480
0.21	1.02480	0.18051	0.18051	0.71	1.50163	0.61639	0.47571	1.21	1.90053	1.35801	0.66735
0.22	1.02723	0.19671	0.19671	0.72	1.53126	0.62712	0.48115	1.22	1.91896	1.38176	0.66985
0.23	1.02989	0.21376	0.21376	0.73	1.56213	0.63785	0.48659	1.23	1.93783	1.40601	0.67230
0.24	1.03256	0.23166	0.23166	0.74	1.59426	0.64858	0.49203	1.24	1.95716	1.43076	0.67475
0.25	1.03535	0.25041	0.25041	0.75	1.62853	0.65931	0.49747	1.25	1.97693	1.45601	0.67715
0.26	1.03823	0.27001	0.27001	0.76	1.66496	0.67004	0.50291	1.26	1.99716	1.48176	0.67947
0.27	1.04120	0.29046	0.29046	0.77	1.70353	0.68077	0.50835	1.27	2.01783	1.50801	0.68178
0.28	1.04426	0.31176	0.31176	0.78	1.74426	0.69150	0.51379	1.28	2.03896	1.53476	0.68404
0.29	1.04743	0.33383	0.33383	0.79	1.78713	0.70223	0.51923	1.29	2.06053	1.56201	0.68626
0.30	1.05071	0.35676	0.35676	0.80	1.83216	0.71296	0.52467	1.30	2.08256	1.58976	0.68845
0.31	1.05411	0.38053	0.38053	0.81	1.87943	0.72369	0.53011	1.31	2.10503	1.61801	0.69057
0.32	1.05761	0.40516	0.40516	0.82	1.92896	0.73442	0.53555	1.32	2.12796	1.64676	0.69261
0.33	1.06126	0.43063	0.43063	0.83	1.98073	0.74515	0.54099	1.33	2.15133	1.67601	0.69458
0.34	1.06506	0.45696	0.45696	0.84	2.03476	0.75588	0.54643	1.34	2.17516	1.70576	0.69641
0.35	1.06894	0.48413	0.48413	0.85	2.09103	0.76661	0.55187	1.35	2.19943	1.73601	0.69811
0.36	1.07293	0.51216	0.51216	0.86	2.14956	0.77734	0.55731	1.36	2.22416	1.76676	0.69976
0.37	1.07703	0.54103	0.54103	0.87	2.21043	0.78807	0.56275	1.37	2.24933	1.79801	0.70138
0.38	1.08126	0.57076	0.57076	0.88	2.27366	0.79880	0.56819	1.38	2.27496	1.82976	0.70291
0.39	1.08563	0.60133	0.60133	0.89	2.33913	0.80953	0.57363	1.39	2.30103	1.86201	0.70440
0.40	1.09016	0.63276	0.63276	0.90	2.40686	0.82026	0.57907	1.40	2.32756	1.89476	0.70589
0.41	1.09483	0.66503	0.66503	0.91	2.48693	0.83100	0.58451	1.41	2.35453	1.92801	0.70738
0.42	1.09956	0.69816	0.69816	0.92	2.56946	0.84173	0.58995	1.42	2.38196	1.96176	0.70881
0.43	1.10436	0.73213	0.73213	0.93	2.65433	0.85246	0.59539	1.43	2.40983	1.99601	0.71020
0.44	1.10923	0.76696	0.76696	0.94	2.74156	0.86319	0.60083	1.44	2.43816	2.03076	0.71159
0.45	1.11416	0.80263	0.80263	0.95	2.83103	0.87392	0.60627	1.45	2.46693	2.06601	0.71296
0.46	1.11923	0.83916	0.83916	0.96	2.92376	0.88465	0.61171	1.46	2.49616	2.10176	0.71433
0.47	1.12446	0.87653	0.87653	0.97	3.01983	0.89538	0.61715	1.47	2.52583	2.13801	0.71566
0.48	1.12983	0.91476	0.91476	0.98	3.11926	0.90611	0.62259	1.48	2.55596	2.17476	0.71699
0.49	1.13536	0.95383	0.95383	0.99	3.22203	0.91684	0.62803	1.49	2.58653	2.21201	0.71832
0.50	1.14096	0.99376	0.99376	1.00	3.32826	0.92757	0.63347	1.50	2.61756	2.24976	0.71965
C.50	1.14369	0.40145	0.35101		1.61287	0.97391	0.60384		2.53175	1.83521	0.72488

TABLE 14A. Lanchester-Clifford-Schlafli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and $T_{\alpha}(x)$ for $\alpha = 4/9$ and x from 0.00 to 1.50.

$\alpha = 4/9$

$T_{4/9}(x)$

$H_{5/9}(x)$

$F_{4/9}(x)$

x

$T_{4/9}(x)$

$H_{5/9}(x)$

$F_{4/9}(x)$

x

$H_{5/9}(x)$

$F_{4/9}(x)$

x

$T_{4/9}(x)$

$H_{5/9}(x)$

$F_{4/9}(x)$

x

$T_{4/9}(x)$

$H_{5/9}(x)$

$F_{4/9}(x)$

x

$H_{5/9}(x)$

$F_{4/9}(x)$

x

0.80320
0.80320
0.80321
0.80321
0.80321

152.59281
213.06478
233.59699
260.73386
288.45549

239.78122
265.26857
293.59699
324.94105
359.73702

3.20597
3.55812
3.97083
4.41401
4.89362

0.77381
0.77190
0.76345
0.74702
0.72355

3.20597
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4.41401
4.89362

4.514312
4.58162
4.66822
4.76884
4.88464

0.73209
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0.73240
0.73361
0.73740

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1.87841
1.90032
1.92243

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2.60216
2.64402
2.69019

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1.51
1.51
1.52
1.53

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477.76585

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486.12900
537.35930
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6.70403
7.43525
8.23394

0.79233
0.78593
0.77933
0.77255
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5.44668
6.04277
6.70403
7.43525
8.23394

6.87159
7.42220
8.04662
8.74622
9.52666

2.08317
2.10701
2.13108
2.15539
2.17991

2.78819
2.81542
2.84296
2.87080
2.89895

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13.33044

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0.76102
0.76142

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11.22230
12.27311
13.33044

11.43418
12.66066
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15.51216
17.14853

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2.25465
2.28031

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3.13549
3.16642
3.19760

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1204.82353
1332.56110
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1630.12111

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16.48427
17.79430
19.18531
20.6582

0.80175
0.80201
0.80223
0.80241
0.80255

15.25465
16.48427
17.79430
19.18531
20.6582

19.02641
21.06447
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25.81634
28.57854

2.30614
2.33212
2.35835
2.38483
2.41157

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3.34642
3.37692
3.40760

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1.07
1.08
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1601.61512
1771.35568
1955.06669
2160.68924

1802.31869
1994.91315
2205.34032
2435.94012
2693.78122

25.39254
28.11058
31.11772
34.44667
38.12540

0.80267
0.80277
0.80285
0.80292
0.80297

25.39254
28.11058
31.11772
34.44667
38.12540

31.63496
35.01693
38.75901
42.89942
47.48046

2.45775
2.60611
2.76399
2.93188
3.10995

3.39339
3.47221
3.54613
3.61595
3.68166

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1.11
1.12
1.13
1.14

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3584.4673

2983.27890
3309.52752
3648.82678
4035.31463
4462.70298

42.19749
46.70249
51.6637
57.19994
63.25943

0.80301
0.80305
0.80308
0.80310
0.80312

42.19749
46.70249
51.6637
57.19994
63.25943

52.54887
58.15650
64.36031
71.22332
78.81658

2.57751
2.60611
2.76399
2.93188
3.10995

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3.47221
3.54613
3.61595
3.68166

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5925.95572

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5457.94009
6035.55958
6675.86534
7381.56456

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85.76871
94.90298
105.00723

0.80314
0.80315
0.80316
0.80317
0.80318

70.04700
77.51141
85.76871
94.90298
105.00723

87.21650
96.50895
106.78362
118.16019
130.73944

3.07317
3.10731
3.14200
3.17715
3.21283

3.65617
3.69780
3.73944
3.78117
3.82290

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1.22
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0.80321

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9805.16650

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9027.11224
9982.60048
11039.15012
12207.44434

116.18432
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142.2404
157.3158
174.08446

0.80319
0.80319
0.80319
0.80320
0.80320

116.18432
128.57796
142.2404
157.3158
174.08446

144.65443
160.04672
177.07305
195.90649
216.73860

3.23733
3.27848
3.31963
3.36078
3.40193

3.74840
3.79602
3.84404
3.89247
3.94130

1.25
1.26
1.27
1.28
1.29

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10842.74601

13499.29508

152.59281

239.78122

239.78122

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239.78122

2.00

TABLE 14B. Lanchester-Clifford-Schläfli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and $T_{\alpha}(x)$ for $\alpha = 4/9$ and x from 1.50 to 10.0.

x	$F_{5/9}(x)$	$H_{4/9}(x)$	$T_{5/9}(x)$	x	$F_{5/9}(x)$	$H_{4/9}(x)$	$T_{5/9}(x)$	x	$F_{5/9}(x)$	$H_{4/9}(x)$	$T_{5/9}(x)$
0.0	1.00000	0.02027	0.0	0.50	1.11478	0.58493	0.61441	1.0	1.48736	1.3639	0.56573
0.01	1.00005	0.02027	0.02027	0.51	1.11951	0.59329	0.62375	1.01	1.49281	1.3728	0.57123
0.02	1.00018	0.02153	0.03153	0.52	1.12335	0.60169	0.63298	1.02	1.50007	1.3819	0.57674
0.03	1.00041	0.02383	0.05390	0.53	1.12728	0.61012	0.64212	1.03	1.50944	1.3912	0.58204
0.04	1.00072	0.02695	0.06947	0.54	1.13132	0.61863	0.65116	1.04	1.52004	1.4008	0.58719
0.05	1.00113	0.02978	0.08699	0.55	1.13547	0.62726	0.66010	1.05	1.53189	1.4106	0.59220
0.06	1.00161	0.03232	0.10647	0.56	1.13971	0.63602	0.66894	1.06	1.54498	1.4206	0.59708
0.07	1.00214	0.03464	0.12458	0.57	1.14408	0.64492	0.67769	1.07	1.55944	1.4308	0.60177
0.08	1.00279	0.03674	0.14258	0.58	1.14852	0.65396	0.68637	1.08	1.57529	1.4412	0.60627
0.09	1.00354	0.03864	0.16058	0.59	1.15308	0.66316	0.69501	1.09	1.59254	1.4518	0.61059
0.10	1.00439	0.04034	0.17858	0.60	1.15774	0.67252	0.70361	1.10	1.61129	1.4626	0.61474
0.11	1.00534	0.04184	0.19658	0.61	1.16251	0.68204	0.71217	1.11	1.63154	1.4736	0.61874
0.12	1.00639	0.04314	0.21458	0.62	1.16738	0.69172	0.72069	1.12	1.65329	1.4848	0.62269
0.13	1.00754	0.04424	0.23258	0.63	1.17234	0.70156	0.72917	1.13	1.67654	1.4962	0.62649
0.14	1.00879	0.04514	0.25058	0.64	1.17739	0.71156	0.73761	1.14	1.70129	1.5078	0.63014
0.15	1.01014	0.04584	0.26858	0.65	1.18254	0.72172	0.74599	1.15	1.72754	1.5196	0.63364
0.16	1.01159	0.04634	0.28658	0.66	1.18779	0.73204	0.75433	1.16	1.75529	1.5316	0.63699
0.17	1.01314	0.04674	0.30458	0.67	1.19314	0.74252	0.76263	1.17	1.78454	1.5438	0.64019
0.18	1.01479	0.04704	0.32258	0.68	1.19859	0.75316	0.77089	1.18	1.81529	1.5562	0.64324
0.19	1.01654	0.04724	0.34058	0.69	1.20414	0.76392	0.77911	1.19	1.84754	1.5688	0.64614
0.20	1.01839	0.04734	0.35858	0.70	1.20979	0.77480	0.78729	1.20	1.88129	1.5816	0.64889
0.21	1.02034	0.04734	0.37658	0.71	1.21554	0.78580	0.79543	1.21	1.91654	1.5946	0.65149
0.22	1.02239	0.04724	0.39458	0.72	1.22139	0.79692	0.80353	1.22	1.95329	1.6078	0.65394
0.23	1.02454	0.04704	0.41258	0.73	1.22734	0.80816	0.81159	1.23	1.99154	1.6212	0.65624
0.24	1.02679	0.04674	0.43058	0.74	1.23339	0.81952	0.81961	1.24	2.03129	1.6348	0.65839
0.25	1.02914	0.04634	0.44858	0.75	1.23954	0.83100	0.82759	1.25	2.07254	1.6486	0.66029
0.26	1.03159	0.04584	0.46658	0.76	1.24579	0.84260	0.83553	1.26	2.11529	1.6626	0.66194
0.27	1.03414	0.04524	0.48458	0.77	1.25214	0.85432	0.84343	1.27	2.15954	1.6768	0.66334
0.28	1.03679	0.04454	0.50258	0.78	1.25859	0.86616	0.85129	1.28	2.20529	1.6912	0.66459
0.29	1.03954	0.04374	0.52058	0.79	1.26514	0.87812	0.85911	1.29	2.25254	1.7058	0.66569
0.30	1.04239	0.04284	0.53858	0.80	1.27179	0.89020	0.86689	1.30	2.30129	1.7206	0.66659
0.31	1.04534	0.04184	0.55658	0.81	1.27854	0.90240	0.87463	1.31	2.35154	1.7356	0.66719
0.32	1.04839	0.04074	0.57458	0.82	1.28539	0.91472	0.88233	1.32	2.40329	1.7508	0.66759
0.33	1.05154	0.03954	0.59258	0.83	1.29234	0.92716	0.88999	1.33	2.45654	1.7662	0.66779
0.34	1.05479	0.03824	0.61058	0.84	1.29939	0.93972	0.89761	1.34	2.51129	1.7818	0.66769
0.35	1.05814	0.03684	0.62858	0.85	1.30654	0.95240	0.90519	1.35	2.56754	1.7976	0.66719
0.36	1.06159	0.03534	0.64658	0.86	1.31379	0.96520	0.91273	1.36	2.62529	1.8136	0.66629
0.37	1.06514	0.03374	0.66458	0.87	1.32114	0.97812	0.92023	1.37	2.68454	1.8298	0.66499
0.38	1.06879	0.03204	0.68258	0.88	1.32859	0.99120	0.92769	1.38	2.74529	1.8462	0.66329
0.39	1.07254	0.03024	0.70058	0.89	1.33614	1.00440	0.93511	1.39	2.80754	1.8628	0.66119
0.40	1.07639	0.02834	0.71858	0.90	1.34379	1.01772	0.94249	1.40	2.87129	1.8796	0.65869
0.41	1.08034	0.02634	0.73658	0.91	1.35154	1.03120	0.94983	1.41	2.93654	1.8966	0.65579
0.42	1.08439	0.02424	0.75458	0.92	1.35939	1.04480	0.95713	1.42	3.00329	1.9138	0.65249
0.43	1.08854	0.02204	0.77258	0.93	1.36734	1.05852	0.96439	1.43	3.07154	1.9312	0.64879
0.44	1.09279	0.01974	0.79058	0.94	1.37539	1.07240	0.97161	1.44	3.14129	1.9488	0.64459
0.45	1.09714	0.01734	0.80858	0.95	1.38354	1.08640	0.97879	1.45	3.21254	1.9666	0.63989
0.46	1.10159	0.01484	0.82658	0.96	1.39179	1.10052	0.98593	1.46	3.28529	1.9846	0.63459
0.47	1.10614	0.01224	0.84458	0.97	1.40014	1.11480	0.99303	1.47	3.35954	1.9998	0.62879
0.48	1.11079	0.00954	0.86258	0.98	1.40859	1.12920	0.99999	1.48	3.43529	2.0152	0.62249
0.49	1.11554	0.00674	0.88058	0.99	1.41714	1.14372	1.00681	1.49	3.51254	2.0308	0.61569
0.50	1.12039	0.00384	0.89858	1.00	1.42579	1.15840	1.01349	1.50	3.59129	2.0466	0.60829

TABLE 15A. Lanchester-Clifford-Schlöfli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and

$T_{\alpha}(x)$ for $\alpha = 5/9$ and x from 0.00 to 1.50.

$\alpha = 5/9$

x	$F_{5/9}(x)$	$H_4/9(x)$	$T_{5/9}(x)$	x	$F_{5/9}(x)$	$H_4/9(x)$	$T_{5/9}(x)$	x	$F_{5/9}(x)$	$H_4/9(x)$	$T_{5/9}(x)$
1.50	2.0954	2.5026	1.1323	6.0	3.4593	4.15395	1.2015	7.0	4.6377	5.77911	1.2305
1.51	2.24955	2.6390	1.13203	6.1	3.47178	4.15395	1.2015	7.1	4.6377	5.77911	1.2305
1.52	2.39572	2.76635	1.13194	6.2	3.48401	4.15395	1.2015	7.2	4.6377	5.77911	1.2305
1.53	2.53391	2.88970	1.13181	6.3	3.49624	4.15395	1.2015	7.3	4.6377	5.77911	1.2305
1.54	2.66710	3.00970	1.13168	6.4	3.50847	4.15395	1.2015	7.4	4.6377	5.77911	1.2305
1.55	2.79529	3.12657	1.13155	6.5	3.52070	4.15395	1.2015	7.5	4.6377	5.77911	1.2305
1.56	2.91848	3.24044	1.13142	6.6	3.53293	4.15395	1.2015	7.6	4.6377	5.77911	1.2305
1.57	3.03667	3.35131	1.13129	6.7	3.54516	4.15395	1.2015	7.7	4.6377	5.77911	1.2305
1.58	3.14986	3.45918	1.13116	6.8	3.55739	4.15395	1.2015	7.8	4.6377	5.77911	1.2305
1.59	3.25805	3.56405	1.13103	6.9	3.56962	4.15395	1.2015	7.9	4.6377	5.77911	1.2305
1.60	3.36124	3.66592	1.13090	7.0	3.58185	4.15395	1.2015	8.0	3.76105	6.25454	1.24500
1.61	3.45943	3.76479	1.13077	7.1	3.59408	4.15395	1.2015	8.1	3.76105	6.25454	1.24500
1.62	3.55262	3.86066	1.13064	7.2	3.60631	4.15395	1.2015	8.2	3.76105	6.25454	1.24500
1.63	3.64081	3.95353	1.13051	7.3	3.61854	4.15395	1.2015	8.3	3.76105	6.25454	1.24500
1.64	3.72400	4.04340	1.13038	7.4	3.63077	4.15395	1.2015	8.4	3.76105	6.25454	1.24500
1.65	3.80219	4.13027	1.13025	7.5	3.64300	4.15395	1.2015	8.5	3.76105	6.25454	1.24500
1.66	3.87538	4.21414	1.13012	7.6	3.65523	4.15395	1.2015	8.6	3.76105	6.25454	1.24500
1.67	3.94357	4.29501	1.13000	7.7	3.66746	4.15395	1.2015	8.7	3.76105	6.25454	1.24500
1.68	4.00676	4.37288	1.12987	7.8	3.67969	4.15395	1.2015	8.8	3.76105	6.25454	1.24500
1.69	4.06495	4.44775	1.12974	7.9	3.69192	4.15395	1.2015	8.9	3.76105	6.25454	1.24500
1.70	4.11714	4.51962	1.12961	8.0	3.70415	4.15395	1.2015	9.0	3.76105	6.25454	1.24500
1.71	4.16333	4.58849	1.12948	8.1	3.71638	4.15395	1.2015	9.1	3.76105	6.25454	1.24500
1.72	4.20352	4.65436	1.12935	8.2	3.72861	4.15395	1.2015	9.2	3.76105	6.25454	1.24500
1.73	4.23771	4.71723	1.12922	8.3	3.74084	4.15395	1.2015	9.3	3.76105	6.25454	1.24500
1.74	4.26590	4.77710	1.12910	8.4	3.75307	4.15395	1.2015	9.4	3.76105	6.25454	1.24500
1.75	4.28809	4.83397	1.12897	8.5	3.76530	4.15395	1.2015	9.5	3.76105	6.25454	1.24500
1.76	4.30428	4.88784	1.12884	8.6	3.77753	4.15395	1.2015	9.6	3.76105	6.25454	1.24500
1.77	4.31447	4.93871	1.12871	8.7	3.78976	4.15395	1.2015	9.7	3.76105	6.25454	1.24500
1.78	4.31866	4.98658	1.12858	8.8	3.80199	4.15395	1.2015	9.8	3.76105	6.25454	1.24500
1.79	4.31685	5.03145	1.12845	8.9	3.81422	4.15395	1.2015	9.9	3.76105	6.25454	1.24500
1.80	4.30904	5.07332	1.12832	9.0	3.82645	4.15395	1.2015	10.0	3.76105	6.25454	1.24500
1.81	4.29523	5.11219	1.12819								
1.82	4.27542	5.14806	1.12806								
1.83	4.25061	5.18093	1.12793								
1.84	4.22080	5.21080	1.12780								
1.85	4.18599	5.23767	1.12767								
1.86	4.14618	5.26154	1.12754								
1.87	4.10137	5.28241	1.12741								
1.88	4.05156	5.30028	1.12728								
1.89	3.99675	5.31515	1.12715								
1.90	3.93694	5.32702	1.12702								
1.91	3.87213	5.33589	1.12689								
1.92	3.80232	5.34176	1.12676								
1.93	3.72751	5.34463	1.12663								
1.94	3.64770	5.34450	1.12650								
1.95	3.56289	5.34137	1.12637								
1.96	3.47308	5.33524	1.12624								
1.97	3.37827	5.32611	1.12611								
1.98	3.27846	5.31398	1.12598								
1.99	3.17365	5.29885	1.12585								
2.00	3.06384	5.28072	1.12572								

TABLE 15B. Lanchester-Clifford-Schlafli Functions $F_\alpha(x)$, $H_{1-\alpha}(x)$, and

$T_\alpha(x)$ for $\alpha = 5/9$ and x from 1.50 to 10.0.

x	$F_{3/11}(x)$	$H_8/11(x)$	$T_{3/11}(x)$	x	$F_{3/11}(x)$	$H_8/11(x)$	$T_{3/11}(x)$	x	$F_{3/11}(x)$	$H_8/11(x)$	$T_{3/11}(x)$
0.0	1.0000	0.0006	0.0002	0.50	1.2495	0.1925	0.1537	1.00	2.01006	0.57771	0.28741
0.01	1.0003	0.0062	0.0012	0.51	1.2545	0.1925	0.1537	1.01	2.02335	0.58776	0.28920
0.02	1.0007	0.0127	0.0023	0.52	1.2594	0.20048	0.1606	1.02	2.03694	0.59791	0.29096
0.03	1.0011	0.0193	0.0030	0.53	1.2643	0.20845	0.1674	1.03	2.05078	0.60816	0.29269
0.04	1.0014	0.0260	0.0046	0.54	1.2692	0.21645	0.1742	1.04	2.06485	0.61852	0.29439
0.05	1.0017	0.0327	0.0062	0.55	1.2741	0.22449	0.1810	1.05	2.07915	0.62905	0.29605
0.06	1.0020	0.0394	0.0078	0.56	1.2790	0.23256	0.1878	1.06	2.09367	0.63970	0.29770
0.07	1.0023	0.0461	0.0094	0.57	1.2839	0.24066	0.1946	1.07	2.10841	0.65045	0.29935
0.08	1.0026	0.0528	0.0110	0.58	1.2888	0.24878	0.2014	1.08	2.12336	0.66120	0.30100
0.09	1.0029	0.0595	0.0126	0.59	1.2937	0.25692	0.2082	1.09	2.13852	0.67196	0.30265
0.10	1.0032	0.0662	0.0142	0.60	1.2986	0.26508	0.2150	1.10	2.15388	0.68271	0.30430
0.11	1.0035	0.0729	0.0158	0.61	1.3035	0.27326	0.2218	1.11	2.16945	0.69346	0.30595
0.12	1.0038	0.0796	0.0174	0.62	1.3084	0.28146	0.2286	1.12	2.18522	0.70421	0.30760
0.13	1.0041	0.0863	0.0190	0.63	1.3133	0.28968	0.2354	1.13	2.20119	0.71496	0.30925
0.14	1.0044	0.0930	0.0206	0.64	1.3182	0.29792	0.2422	1.14	2.21736	0.72571	0.31090
0.15	1.0047	0.0997	0.0222	0.65	1.3231	0.30618	0.2490	1.15	2.23373	0.73646	0.31255
0.16	1.0050	0.1064	0.0238	0.66	1.3280	0.31446	0.2558	1.16	2.25030	0.74721	0.31420
0.17	1.0053	0.1131	0.0254	0.67	1.3329	0.32276	0.2626	1.17	2.26707	0.75796	0.31585
0.18	1.0056	0.1198	0.0270	0.68	1.3378	0.33108	0.2694	1.18	2.28404	0.76871	0.31750
0.19	1.0059	0.1265	0.0286	0.69	1.3427	0.33942	0.2762	1.19	2.30121	0.77946	0.31915
0.20	1.0062	0.1332	0.0302	0.70	1.3476	0.34778	0.2830	1.20	2.31858	0.79021	0.32080
0.21	1.0065	0.1399	0.0318	0.71	1.3525	0.35616	0.2898	1.21	2.33615	0.80096	0.32245
0.22	1.0068	0.1466	0.0334	0.72	1.3574	0.36456	0.2966	1.22	2.35392	0.81171	0.32410
0.23	1.0071	0.1533	0.0350	0.73	1.3623	0.37298	0.3034	1.23	2.37189	0.82246	0.32575
0.24	1.0074	0.1600	0.0366	0.74	1.3672	0.38142	0.3102	1.24	2.38996	0.83321	0.32740
0.25	1.0077	0.1667	0.0382	0.75	1.3721	0.38988	0.3170	1.25	2.40823	0.84396	0.32905
0.26	1.0080	0.1734	0.0398	0.76	1.3770	0.39836	0.3238	1.26	2.42670	0.85471	0.33070
0.27	1.0083	0.1801	0.0414	0.77	1.3819	0.40686	0.3306	1.27	2.44527	0.86546	0.33235
0.28	1.0086	0.1868	0.0430	0.78	1.3868	0.41538	0.3374	1.28	2.46394	0.87621	0.33400
0.29	1.0089	0.1935	0.0446	0.79	1.3917	0.42392	0.3442	1.29	2.48281	0.88696	0.33565
0.30	1.0092	0.2002	0.0462	0.80	1.3966	0.43248	0.3510	1.30	2.50188	0.89771	0.33730
0.31	1.0095	0.2069	0.0478	0.81	1.4015	0.44106	0.3578	1.31	2.52115	0.90846	0.33895
0.32	1.0098	0.2136	0.0494	0.82	1.4064	0.44966	0.3646	1.32	2.54062	0.91921	0.34060
0.33	1.0101	0.2203	0.0510	0.83	1.4113	0.45828	0.3714	1.33	2.56029	0.92996	0.34225
0.34	1.0104	0.2270	0.0526	0.84	1.4162	0.46692	0.3782	1.34	2.58016	0.94071	0.34390
0.35	1.0107	0.2337	0.0542	0.85	1.4211	0.47558	0.3850	1.35	2.60023	0.95146	0.34555
0.36	1.0110	0.2404	0.0558	0.86	1.4260	0.48426	0.3918	1.36	2.62050	0.96221	0.34720
0.37	1.0113	0.2471	0.0574	0.87	1.4309	0.49296	0.3986	1.37	2.64097	0.97296	0.34885
0.38	1.0116	0.2538	0.0590	0.88	1.4358	0.50168	0.4054	1.38	2.66164	0.98371	0.35050
0.39	1.0119	0.2605	0.0606	0.89	1.4407	0.51042	0.4122	1.39	2.68251	0.99446	0.35215
0.40	1.0122	0.2672	0.0622	0.90	1.4456	0.51918	0.4190	1.40	2.70358	1.00521	0.35380
0.41	1.0125	0.2739	0.0638	0.91	1.4505	0.52796	0.4258	1.41	2.72485	1.01596	0.35545
0.42	1.0128	0.2806	0.0654	0.92	1.4554	0.53676	0.4326	1.42	2.74632	1.02671	0.35710
0.43	1.0131	0.2873	0.0670	0.93	1.4603	0.54558	0.4394	1.43	2.76799	1.03746	0.35875
0.44	1.0134	0.2940	0.0686	0.94	1.4652	0.55442	0.4462	1.44	2.78986	1.04821	0.36040
0.45	1.0137	0.3007	0.0702	0.95	1.4701	0.56328	0.4530	1.45	2.81193	1.05896	0.36205
0.46	1.0140	0.3074	0.0718	0.96	1.4750	0.57216	0.4598	1.46	2.83430	1.06971	0.36370
0.47	1.0143	0.3141	0.0734	0.97	1.4799	0.58106	0.4666	1.47	2.85687	1.08046	0.36535
0.48	1.0146	0.3208	0.0750	0.98	1.4848	0.58998	0.4734	1.48	2.87964	1.09121	0.36700
0.49	1.0149	0.3275	0.0766	0.99	1.4897	0.59892	0.4802	1.49	2.90271	1.10196	0.36865
0.50	1.0152	0.3342	0.0782	1.00	2.01006	0.57771	0.28741	1.50	3.55754	1.23148	0.34616

TABLE 16A. Lanchester-Clifford-Schlafli Functions $F_\alpha(x)$, $H_{1-\alpha}(x)$, and $T_\alpha(x)$ for $\alpha = 3/11$ and x from 0.00 to 1.50.

x	$F_{5/11}(x)$	$H_{6/11}(x)$	$T_{5/11}(x)$	x	$F_{5/11}(x)$	$H_{6/11}(x)$	$T_{5/11}(x)$	x	$F_{5/11}(x)$	$H_{6/11}(x)$	$T_{5/11}(x)$
0.0	1.00000	0.0	0.0	0.50	1.14048	0.42061	0.36800	1.0	1.59890	1.0062	0.62976
0.01	1.00006	0.00566	0.00566	0.51	1.14928	0.42048	0.37555	1.01	1.61198	1.0255	0.63299
0.02	1.00022	0.01206	0.01209	0.52	1.15221	0.42042	0.38224	1.02	1.62481	1.0455	0.63639
0.03	1.00050	0.01878	0.01877	0.53	1.15829	0.42036	0.38885	1.03	1.63765	1.0640	0.64002
0.04	1.00088	0.02570	0.02568	0.54	1.16444	0.42030	0.39535	1.04	1.65224	1.0849	0.64440
0.05	1.00138	0.03279	0.03274	0.55	1.17173	0.42024	0.40197	1.05	1.66902	1.07862	0.64743
0.06	1.00198	0.04001	0.03993	0.56	1.17713	0.42019	0.40843	1.06	1.67997	1.09332	0.65080
0.07	1.00270	0.04735	0.04722	0.57	1.18374	0.42014	0.41442	1.07	1.69411	1.10814	0.65412
0.08	1.00352	0.05473	0.05459	0.58	1.19043	0.42009	0.42116	1.08	1.70843	1.12309	0.65738
0.09	1.00446	0.06231	0.06204	0.59	1.19725	0.42003	0.42774	1.09	1.72592	1.13815	0.66059
0.10	1.00550	0.06993	0.06954	0.60	1.20420	0.42000	0.43365	1.1	1.73761	1.15335	0.66376
0.11	1.00669	0.07791	0.07710	0.61	1.21138	0.42000	0.43980	1.11	1.75448	1.16867	0.66687
0.12	1.00801	0.08530	0.08470	0.62	1.21850	0.42000	0.44558	1.12	1.76533	1.18412	0.66993
0.13	1.00931	0.09234	0.09234	0.63	1.22532	0.42000	0.45171	1.13	1.78778	1.19911	0.67293
0.14	1.01060	0.09910	0.10001	0.64	1.23297	0.42000	0.45717	1.14	1.79822	1.21542	0.67590
0.15	1.01191	0.10566	0.10711	0.65	1.24093	0.42000	0.46316	1.15	1.81384	1.23127	0.67882
0.16	1.01323	0.11206	0.11543	0.66	1.24938	0.42000	0.46959	1.16	1.82967	1.24776	0.68169
0.17	1.01457	0.11833	0.12317	0.67	1.25657	0.42000	0.47536	1.17	1.84569	1.26438	0.68450
0.18	1.01592	0.12456	0.12992	0.68	1.26359	0.42000	0.48106	1.18	1.86190	1.28164	0.68728
0.19	1.01728	0.13074	0.13668	0.69	1.27044	0.42000	0.48670	1.19	1.87831	1.29904	0.69000
0.20	1.01864	0.13687	0.14344	0.7	1.27717	0.42000	0.49227	1.2	1.89493	1.31259	0.69269
0.21	1.02008	0.14296	0.14944	0.71	1.28379	0.42000	0.49773	1.21	1.91174	1.32958	0.69532
0.22	1.02153	0.14900	0.15579	0.72	1.29035	0.42000	0.50320	1.22	1.92877	1.34611	0.69791
0.23	1.02297	0.15500	0.16197	0.73	1.29679	0.42000	0.50862	1.23	1.94599	1.36302	0.70046
0.24	1.02441	0.16096	0.16773	0.74	1.30312	0.42000	0.51390	1.24	1.96342	1.38022	0.70297
0.25	1.02584	0.16689	0.17348	0.75	1.30936	0.42000	0.51915	1.25	1.98107	1.39750	0.70543
0.26	1.02728	0.17279	0.17924	0.76	1.31562	0.42000	0.52443	1.26	1.99892	1.41493	0.70785
0.27	1.02871	0.17866	0.18494	0.77	1.32190	0.42000	0.52973	1.27	2.01697	1.43252	0.71027
0.28	1.03015	0.18450	0.19065	0.78	1.32819	0.42000	0.53505	1.28	2.03527	1.45036	0.71267
0.29	1.03159	0.19031	0.19630	0.79	1.33448	0.42000	0.54048	1.29	2.05377	1.46816	0.71486
0.3	1.03302	0.19609	0.20200	0.8	1.34077	0.42000	0.54590	1.3	2.07248	1.48623	0.71712
0.31	1.03445	0.20184	0.20794	0.81	1.34706	0.42000	0.55133	1.31	2.09142	1.50445	0.71934
0.32	1.03588	0.20756	0.21329	0.82	1.35335	0.42000	0.55676	1.32	2.11058	1.52283	0.72152
0.33	1.03731	0.21326	0.21888	0.83	1.35964	0.42000	0.56220	1.33	2.12998	1.54138	0.72367
0.34	1.03874	0.21894	0.22459	0.84	1.36593	0.42000	0.56763	1.34	2.14957	1.56010	0.72577
0.35	1.04017	0.22461	0.23039	0.85	1.37222	0.42000	0.57306	1.35	2.16941	1.57908	0.72784
0.36	1.04160	0.23026	0.23619	0.86	1.37851	0.42000	0.57849	1.36	2.18948	1.59827	0.72987
0.37	1.04303	0.23591	0.24194	0.87	1.38480	0.42000	0.58392	1.37	2.20977	1.61767	0.73187
0.38	1.04446	0.24156	0.24769	0.88	1.39109	0.42000	0.58935	1.38	2.23031	1.63727	0.73383
0.39	1.04589	0.24721	0.25344	0.89	1.39738	0.42000	0.59478	1.39	2.25109	1.65705	0.73576
0.4	1.04732	0.25286	0.25919	0.9	1.40367	0.42000	0.60021	1.4	2.27210	1.67690	0.73765
0.41	1.04875	0.25851	0.26494	0.91	1.40996	0.42000	0.60564	1.41	2.29335	1.69695	0.73951
0.42	1.05018	0.26416	0.27069	0.92	1.41625	0.42000	0.61107	1.42	2.31484	1.71707	0.74133
0.43	1.05161	0.26981	0.27644	0.93	1.42254	0.42000	0.61650	1.43	2.33657	1.73737	0.74312
0.44	1.05304	0.27546	0.28219	0.94	1.42883	0.42000	0.62193	1.44	2.35857	1.75786	0.74487
0.45	1.05447	0.28111	0.28794	0.95	1.43512	0.42000	0.62736	1.45	2.38081	1.77852	0.74661
0.46	1.05590	0.28676	0.29369	0.96	1.44141	0.42000	0.63279	1.46	2.40329	1.79937	0.74833
0.47	1.05733	0.29241	0.29944	0.97	1.44770	0.42000	0.63822	1.47	2.42604	1.82048	0.74998
0.48	1.05876	0.29806	0.30519	0.98	1.45400	0.42000	0.64365	1.48	2.44904	1.84184	0.75162
0.49	1.06019	0.30371	0.31094	0.99	1.46030	0.42000	0.64908	1.49	2.47230	1.86340	0.75322
0.5	1.10488	0.42061	0.36880	1.00	1.59890	1.00632	0.62976	1.50	2.49582	1.88385	0.75480

TABLE 17A. Lanchester-Clifford-Schlafli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and $T_{\alpha}(x)$ for $\alpha = 5/11$ and x from 0.00 to 1.50.

$\alpha = 5/11$

x	$F_{5/11}(x)$	$H_6/11(x)$	$T_{5/11}(x)$	x	$F_{5/11}(x)$	$H_6/11(x)$	$T_{5/11}(x)$	x	$F_{5/11}(x)$	$H_6/11(x)$	$T_{5/11}(x)$
1.50	2.49582	1.88385	0.75480	2.0	4.06673	3.77578	0.80551	6.0	232.0772	194.05080	0.83607
1.51	2.51961	1.90571	0.76335	2.1	4.49330	3.84456	0.81100	6.1	238.09225	197.01571	0.83607
1.52	2.54386	1.92887	0.76877	2.2	5.06800	4.05149	0.81552	6.2	246.03338	200.06719	0.83607
1.53	2.56827	1.95292	0.77683	2.3	5.79598	4.30690	0.81927	6.3	255.00000	203.20308	0.83607
1.54	2.59277	1.97744	0.78698	2.4	6.67677	4.61758	0.82227	6.4	265.03397	206.51927	0.83607
1.55	2.61744	1.99520	0.79908	2.5	7.72315	5.05450	0.82461	6.5	276.16261	210.11894	0.83608
1.56	2.64280	2.00810	0.81288	2.6	8.99122	5.62031	0.82632	6.6	288.48830	214.01330	0.83608
1.57	2.66800	2.01722	0.82707	2.7	10.48289	6.32849	0.82747	6.7	301.92447	218.10943	0.83608
1.58	2.69336	2.02255	0.83263	2.8	12.21044	7.18048	0.82797	6.8	316.48053	222.41314	0.83608
1.59	2.71969	2.02480	0.83908	2.9	14.18293	8.18283	0.82778	6.9	332.25222	226.92522	0.83608
1.60	2.74577	2.02358	0.84627	3.0	16.40846	9.34175	0.82682	7.0	349.35074	231.64717	0.83608
1.61	2.77255	2.01845	0.85416	3.1	18.88293	10.66260	0.82515	7.1	367.78210	236.58210	0.83608
1.62	2.80000	2.00980	0.86263	3.2	21.60846	12.15115	0.82267	7.2	387.64710	241.72710	0.83608
1.63	2.82828	2.00707	0.87163	3.3	24.58293	13.81229	0.81942	7.3	408.95074	247.18210	0.83608
1.64	2.85736	2.01022	0.88108	3.4	27.80846	15.65115	0.81547	7.4	431.69210	252.94710	0.83608
1.65	2.88713	2.01937	0.89098	3.5	31.28293	17.67229	0.81082	7.5	455.97210	259.02710	0.83608
1.66	2.90819	2.03373	0.90127	3.6	35.00846	19.98210	0.80547	7.6	481.79210	265.42710	0.83608
1.67	2.93080	2.05337	0.91197	3.7	38.98293	22.58210	0.80000	7.7	509.14710	272.14710	0.83608
1.68	2.95500	2.07837	0.92307	3.8	43.20846	25.48210	0.79442	7.8	538.04710	279.18710	0.83608
1.69	2.98000	2.10877	0.93457	3.9	47.68293	28.68210	0.78877	7.9	568.49710	286.54710	0.83608
1.70	3.02509	2.36239	0.78093	4.0	52.40846	32.18210	0.78307	8.0	600.49710	294.24710	0.83608
1.71	3.05471	2.38778	0.78200	4.1	57.38293	35.98210	0.77727	8.1	634.04710	302.28710	0.83608
1.72	3.08496	2.41542	0.78307	4.2	62.60846	39.98210	0.77147	8.2	669.14710	310.67710	0.83608
1.73	3.11559	2.44531	0.78408	4.3	68.08293	44.18210	0.76567	8.3	705.79710	319.40710	0.83608
1.74	3.14749	2.47746	0.78507	4.4	73.80846	48.58210	0.75977	8.4	744.64710	328.48710	0.83608
1.75	3.17961	2.51188	0.78607	4.5	79.78293	53.18210	0.75377	8.5	785.69710	337.91710	0.83608
1.76	3.20766	2.54855	0.78704	4.6	85.98293	57.98210	0.74767	8.6	828.94710	347.69710	0.83608
1.77	3.23395	2.58711	0.78799	4.7	92.40846	62.98210	0.74147	8.7	874.29710	357.92710	0.83608
1.78	3.25807	2.62766	0.78892	4.8	99.08293	68.18210	0.73517	8.8	921.74710	368.50710	0.83608
1.79	3.28034	2.67020	0.78984	4.9	106.00846	73.58210	0.72877	8.9	971.29710	379.42710	0.83608
1.80	3.30034	2.71474	0.79074	5.0	113.28293	79.18210	0.72227	9.0	1023.04710	390.68710	0.83608
1.81	3.31867	2.76101	0.79163	5.1	120.80846	84.98210	0.71567	9.1	1077.29710	402.28710	0.83608
1.82	3.33597	2.80844	0.79257	5.2	128.58293	90.98210	0.70907	9.2	1133.94710	414.22710	0.83608
1.83	3.35241	2.85726	0.79344	5.3	136.60846	97.18210	0.70247	9.3	1192.99710	426.42710	0.83608
1.84	3.36797	2.90711	0.79429	5.4	144.88293	103.58210	0.69577	9.4	1254.44710	438.88710	0.83608
1.85	3.38267	2.95844	0.79514	5.5	153.40846	110.18210	0.68907	9.5	1318.29710	451.60710	0.83608
1.86	3.39657	3.01126	0.79598	5.6	162.18293	116.98210	0.68227	9.6	1384.54710	464.58710	0.83608
1.87	3.40977	3.06541	0.79683	5.7	171.20846	123.98210	0.67547	9.7	1453.19710	477.82710	0.83608
1.88	3.42241	3.12093	0.79767	5.8	180.48293	131.18210	0.66867	9.8	1524.24710	491.32710	0.83608
1.89	3.43457	3.17844	0.79851	5.9	190.00846	138.58210	0.66177	9.9	1597.69710	505.08710	0.83608
1.90	3.44627	3.23744	0.79934	6.0	200.78293	146.18210	0.65477	10.0	1673.44710	519.08710	0.83608
1.91	3.45747	3.29784	0.80017								
1.92	3.46817	3.35964	0.80097								
1.93	3.47847	3.42284	0.80177								
1.94	3.48827	3.48744	0.80257								
1.95	3.49747	3.55344	0.80337								
1.96	3.50607	3.62084	0.80417								
1.97	3.51407	3.68964	0.80497								
1.98	3.52147	3.75984	0.80577								
1.99	3.52827	3.83144	0.80657								
2.00	3.53447	3.90444	0.80737								

TABLE 17B. Lanchester-Clifford-Schlafli Functions $F_\alpha(x)$, $H_{1-\alpha}(x)$, and $T_\alpha(x)$ for $\alpha = 5/11$ and x from 1.50 to 10.0.

x	$F_{6/11}(x)$	$H_{5/11}(x)$	$T_{6/11}(x)$	x	$F_{6/11}(x)$	$H_{5/11}(x)$	$T_{6/11}(x)$	x	$F_{6/11}(x)$	$H_{5/11}(x)$	$T_{6/11}(x)$
0.0	1.00000	0.0	0.0	0.50	1.1692	0.65102	0.58287	1.00	1.49694	1.33341	0.92434
0.01	1.00001	0.01781	0.01781	0.51	1.17274	0.65398	0.59192	1.01	1.50743	1.40050	0.92906
0.02	1.00004	0.03435	0.03435	0.52	1.17627	0.65703	0.60087	1.02	1.51837	1.47172	0.93371
0.03	1.00011	0.04835	0.04835	0.53	1.17980	0.66009	0.60973	1.03	1.52955	1.54306	0.93829
0.04	1.00018	0.06281	0.06276	0.54	1.18333	0.70312	0.61849	1.04	1.54087	1.61436	0.94279
0.05	1.00025	0.07695	0.07686	0.55	1.18686	0.71625	0.62719	1.05	1.55233	1.68565	0.94723
0.06	1.00032	0.09084	0.09069	0.56	1.19039	0.72938	0.63573	1.06	1.56380	1.75694	0.95169
0.07	1.00039	0.10452	0.10429	0.57	1.19392	0.74251	0.64421	1.07	1.57527	1.82823	0.95615
0.08	1.00046	0.11804	0.11770	0.58	1.19745	0.75564	0.65269	1.08	1.58674	1.89952	0.96061
0.09	1.00053	0.13142	0.13094	0.59	1.20098	0.76877	0.66099	1.09	1.59821	1.97081	0.96507
0.10	1.00059	0.14468	0.14402	0.60	1.20451	0.78190	0.66909	1.10	1.60968	2.04210	0.96953
0.11	1.00065	0.15783	0.15696	0.61	1.20804	0.79503	0.67720	1.11	1.62115	2.11339	0.97399
0.12	1.00071	0.17089	0.16977	0.62	1.21157	0.80816	0.68531	1.12	1.63262	2.18468	0.97845
0.13	1.00077	0.18387	0.18246	0.63	1.21510	0.82129	0.69342	1.13	1.64409	2.25597	0.98291
0.14	1.00083	0.19678	0.19502	0.64	1.21863	0.83442	0.70153	1.14	1.65556	2.32726	0.98737
0.15	1.01033	0.20962	0.20747	0.65	1.22216	0.84755	0.70964	1.15	1.66703	2.39855	0.99183
0.16	1.01176	0.22247	0.21992	0.66	1.22569	0.86068	0.71775	1.16	1.67850	2.46984	0.99629
0.17	1.01319	0.23531	0.23206	0.67	1.22922	0.87381	0.72586	1.17	1.69000	2.54113	1.00075
0.18	1.01462	0.24815	0.24419	0.68	1.23275	0.88694	0.73397	1.18	1.70147	2.61242	1.00521
0.19	1.01605	0.26099	0.25653	0.69	1.23628	0.89999	0.74208	1.19	1.71294	2.68371	1.00967
0.20	1.01748	0.27383	0.26916	0.70	1.23981	0.91312	0.75019	1.20	1.72441	2.75500	1.01413
0.21	1.01891	0.28667	0.28000	0.71	1.24334	0.92625	0.75830	1.21	1.73588	2.82629	1.01859
0.22	1.02034	0.29951	0.29174	0.72	1.24687	0.93938	0.76641	1.22	1.74735	2.89758	1.02305
0.23	1.02177	0.31235	0.30339	0.73	1.25040	0.95251	0.77452	1.23	1.75882	2.96887	1.02751
0.24	1.02320	0.32519	0.31495	0.74	1.25393	0.96564	0.78263	1.24	1.77029	3.04016	1.03197
0.25	1.02463	0.33803	0.32641	0.75	1.25746	0.97877	0.79074	1.25	1.78176	3.11145	1.03643
0.26	1.02606	0.35087	0.33798	0.76	1.26099	0.99190	0.79885	1.26	1.79323	3.18274	1.04089
0.27	1.02749	0.36371	0.34955	0.77	1.26452	1.00503	0.80696	1.27	1.80470	3.25403	1.04535
0.28	1.02892	0.37655	0.36112	0.78	1.26805	1.01816	0.81507	1.28	1.81617	3.32532	1.04981
0.29	1.03035	0.38939	0.37269	0.79	1.27158	1.03129	0.82318	1.29	1.82764	3.39661	1.05427
0.30	1.03178	0.40223	0.38426	0.80	1.27511	1.04442	0.83129	1.30	1.83911	3.46790	1.05873
0.31	1.03321	0.41507	0.39583	0.81	1.27864	1.05755	0.83940	1.31	1.85058	3.53919	1.06319
0.32	1.03464	0.42791	0.40740	0.82	1.28217	1.07068	0.84751	1.32	1.86205	3.61048	1.06765
0.33	1.03607	0.44075	0.41897	0.83	1.28570	1.08381	0.85562	1.33	1.87352	3.68177	1.07211
0.34	1.03750	0.45359	0.43054	0.84	1.28923	1.09694	0.86373	1.34	1.88500	3.75306	1.07657
0.35	1.03893	0.46643	0.44211	0.85	1.29276	1.11007	0.87184	1.35	1.89647	3.82435	1.08103
0.36	1.04036	0.47927	0.45368	0.86	1.29629	1.12320	0.87995	1.36	1.90794	3.89564	1.08549
0.37	1.04179	0.49211	0.46525	0.87	1.30000	1.13633	0.88806	1.37	1.91941	3.96693	1.08995
0.38	1.04322	0.50495	0.47682	0.88	1.30353	1.14946	0.89617	1.38	1.93088	4.03822	1.09441
0.39	1.04465	0.51779	0.48839	0.89	1.30706	1.16259	0.90428	1.39	1.94235	4.10951	1.09887
0.40	1.04608	0.53063	0.49996	0.90	1.31059	1.17572	0.91239	1.40	1.95382	4.18080	1.10333
0.41	1.04751	0.54347	0.51153	0.91	1.31412	1.18885	0.92050	1.41	1.96529	4.25209	1.10779
0.42	1.04894	0.55631	0.52310	0.92	1.31765	1.20198	0.92861	1.42	1.97676	4.32338	1.11225
0.43	1.05037	0.56915	0.53467	0.93	1.32118	1.21511	0.93672	1.43	1.98823	4.39467	1.11671
0.44	1.05180	0.58199	0.54624	0.94	1.32471	1.22824	0.94483	1.44	1.99970	4.46596	1.12117
0.45	1.05323	0.59483	0.55781	0.95	1.32824	1.24137	0.95294	1.45	2.01117	4.53725	1.12563
0.46	1.05466	0.60767	0.56938	0.96	1.33177	1.25450	0.96105	1.46	2.02264	4.60854	1.13009
0.47	1.05609	0.62051	0.58095	0.97	1.33530	1.26763	0.96916	1.47	2.03411	4.67983	1.13455
0.48	1.05752	0.63335	0.59252	0.98	1.33883	1.28076	0.97727	1.48	2.04558	4.75112	1.13901
0.49	1.05895	0.64619	0.60409	0.99	1.34236	1.29389	0.98538	1.49	2.05705	4.82241	1.14347
0.50	1.06038	0.65903	0.61566	1.00	1.34589	1.30702	0.99349	1.50	2.06852	4.89370	1.14793

TABLE 18A. Lanchester-Clifford-Schlafli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and

$T_{\alpha}(x)$ for $\alpha = 6/11$ and x from 0.00 to 1.50.

$\alpha = 6/11$

x	$F_{6/11}(x)$	$H_{5/11}(x)$	$T_{6/11}(x)$	x	$F_{6/11}(x)$	$H_{5/11}(x)$	$T_{6/11}(x)$	x	$F_{6/11}(x)$	$H_{5/11}(x)$	$T_{6/11}(x)$
1.50	2.23331	2.47197	1.08716	2.0	3.50987	4.05206	1.15448	6.0	177.06395	211.77600	1.19604
1.51	2.25575	2.48571	1.08920	2.1	3.85480	4.47815	1.16186	6.1	195.52444	233.85465	1.19605
1.52	2.27241	2.47967	1.09121	2.2	4.23674	4.94813	1.16796	6.2	211.91287	258.24499	1.19605
1.53	2.28228	2.50586	1.09317	2.3	4.65941	5.46539	1.17298	6.3	238.43078	285.17469	1.19605
1.54	2.31237	2.53230	1.09511	2.4	5.12697	6.03500	1.17711	6.4	265.30080	314.92103	1.19605
1.55	2.33268	2.55899	1.09700	2.5	5.64297	6.66275	1.18351	6.5	290.76886	347.77456	1.19605
1.56	2.35375	2.58587	1.09897	2.6	6.20748	7.35188	1.18959	6.6	324.10415	384.91973	1.19605
1.57	2.37959	2.61042	1.10090	2.7	6.81500	8.09552	1.19529	6.7	357.62955	424.40270	1.19605
1.58	2.40115	2.63807	1.11101	2.8	7.46509	8.88796	1.18748	6.8	391.62950	468.40270	1.19605
1.59	2.41815	2.66807	1.11262	2.9	8.1603	9.7323	1.18992	6.9	433.49920	517.29263	1.19605
1.60	2.43159	2.69596	1.10600	3.0	9.0775	10.6240	1.19029	7.0	471.64739	571.29222	1.19605
1.61	2.44526	2.72411	1.10770	3.1	10.0851	11.5613	1.19133	7.1	521.51434	630.93633	1.19606
1.62	2.45816	2.75252	1.11175	3.2	11.1754	12.5493	1.19219	7.2	588.59366	696.81441	1.19606
1.63	2.47030	2.78118	1.11501	3.3	12.3503	13.5855	1.19288	7.3	648.43061	769.57894	1.19606
1.64	2.48267	2.81011	1.11824	3.4	13.5624	14.6657	1.19346	7.4	710.62752	849.95034	1.19606
1.65	2.49429	2.83930	1.12129	3.5	14.8163	15.7931	1.19393	7.5	786.86378	938.72444	1.19606
1.66	2.50514	2.86876	1.12410	3.6	16.1135	16.9618	1.19431	7.6	869.83243	1038.78091	1.19606
1.67	2.51529	2.89850	1.12658	3.7	17.4535	18.1758	1.19463	7.7	959.33745	1145.08912	1.19606
1.68	2.52469	2.92855	1.12878	3.8	18.8335	19.4303	1.19490	7.8	1055.4185	1258.72443	1.19606
1.69	2.53334	2.95878	1.13078	3.9	20.2576	20.7214	1.19510	7.9	1161.89653	1386.87034	1.19606
1.70	2.54129	2.98914	1.13259	4.0	21.7214	22.0558	1.19527	8.0	1289.93614	1542.83670	1.19606
1.71	2.54854	3.02018	1.13421	4.1	24.2258	23.4338	1.19541	8.1	1429.73996	1704.06917	1.19606
1.72	2.55511	3.05131	1.13569	4.2	27.0129	24.8538	1.19551	8.2	1575.63387	1882.16736	1.19606
1.73	2.56112	3.08273	1.13705	4.3	29.8143	26.3157	1.19553	8.3	1738.1366	2078.89457	1.19606
1.74	2.56660	3.11444	1.13818	4.4	32.6360	27.8182	1.19570	8.4	1919.50963	2296.20135	1.19606
1.75	2.57157	3.14644	1.13911	4.5	36.4837	29.3635	1.19577	8.5	2129.5281	2536.24185	1.19606
1.76	2.57604	3.17874	1.14000	4.6	40.3587	30.9454	1.19582	8.6	2368.0781	2804.59295	1.19606
1.77	2.58004	3.21134	1.14085	4.7	44.2628	32.5635	1.19587	8.7	2635.0781	3094.29214	1.19606
1.78	2.58357	3.24425	1.14167	4.8	48.1968	34.2182	1.19590	8.8	2931.58587	3417.83319	1.19606
1.79	2.58665	3.27727	1.14245	4.9	52.1608	35.9099	1.19593	8.9	3156.39958	3775.23341	1.19606
1.80	2.58938	3.31099	1.14319	5.0	56.1557	37.6385	1.19595	9.0	3488.48246	4170.03133	1.19606
1.81	2.59178	3.34483	1.14389	5.1	60.1821	39.4032	1.19597	9.1	3851.10841	4606.14474	1.19606
1.82	2.59384	3.37899	1.14455	5.2	64.2406	41.2030	1.19599	9.2	4253.89429	5087.89259	1.19606
1.83	2.59557	3.41346	1.14518	5.3	68.3321	43.0387	1.19600	9.3	4688.83581	5620.07697	1.19606
1.84	2.59697	3.44827	1.14578	5.4	72.4562	44.9045	1.19601	9.4	5160.34722	6207.95060	1.19606
1.85	2.59808	3.48340	1.14634	5.5	76.6128	46.8051	1.19602	9.5	5733.30521	6857.35928	1.19606
1.86	2.59890	3.51888	1.14686	5.6	80.8021	48.7419	1.19603	9.6	6333.07337	7574.72484	1.19606
1.87	2.59943	3.55472	1.14735	5.7	85.0241	50.7065	1.19604	9.7	6995.61565	8367.22660	1.19606
1.88	2.59978	3.59093	1.14780	5.8	89.2785	52.7005	1.19604	9.8	7722.61565	9242.66809	1.19606
1.89	2.59998	3.62726	1.14824	5.9	93.5649	54.7281	1.19604	9.9	8536.13180	10209.75923	1.19606
1.90	2.59998	3.66408	1.14868	6.0	97.8932	56.7831	1.19604	10.0	9429.39968	11278.09466	1.19606
1.91	2.59978	3.70125	1.14911								
1.92	2.59943	3.73877	1.14953								
1.93	2.59890	3.77664	1.14994								
1.94	2.59821	3.81488	1.15032								
1.95	2.59738	3.85348	1.15067								
1.96	2.59643	3.89249	1.15100								
1.97	2.59538	3.93190	1.15131								
1.98	2.59425	3.97171	1.15159								
1.99	2.59304	4.01159	1.15186								
2.00	2.59178	4.05206	1.15210								

TABLE 18B. Lanchester-Clifford-Schläfli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and $T_{\alpha}(x)$ for $\alpha = 6/11$ and x from 1.50 to 10.0.

x	$F_{8/11}(x)$	$H_{3/11}(x)$	$T_{8/11}(x)$	x	$F_{8/11}(x)$	$H_{3/11}(x)$	$T_{8/11}(x)$	x	$F_{8/11}(x)$	$H_{3/11}(x)$	$T_{8/11}(x)$
0.0	1.00000	0.0	0.0	0.50	1.08750	1.80707	1.66147	1.00	1.36940	3.03364	2.21531
0.01	1.00003	0.20378	0.20378	0.51	1.09111	1.80325	1.67743	1.01	1.37137	3.06128	2.22266
0.02	1.00014	0.29744	0.29744	0.52	1.09477	1.85340	1.69294	1.02	1.38544	3.08909	2.22999
0.03	1.00031	0.37098	0.37098	0.53	1.09854	1.87854	1.70811	1.03	1.39361	3.11709	2.23736
0.04	1.00055	0.43421	0.43397	0.54	1.10237	1.89966	1.72335	1.04	1.40188	3.14528	2.24461
0.05	1.00086	0.49049	0.49007	0.55	1.10628	1.92218	1.73805	1.05	1.41026	3.17368	2.25184
0.06	1.00124	0.54190	0.54123	0.56	1.11027	1.94590	1.75263	1.06	1.41873	3.20213	2.25909
0.07	1.00168	0.58959	0.58959	0.57	1.11434	1.96903	1.76693	1.07	1.42723	3.23069	2.26636
0.08	1.00219	0.63431	0.63431	0.58	1.11847	1.99232	1.78113	1.08	1.43577	3.25939	2.27364
0.09	1.00276	0.67663	0.67663	0.59	1.12271	2.01552	1.79506	1.09	1.44433	3.28815	2.28093
0.10	1.00344	0.71692	0.71692	0.60	1.12701	2.03850	1.80874	1.10	1.45291	3.31697	2.28822
0.11	1.00416	0.75549	0.75549	0.61	1.13139	2.06117	1.82224	1.11	1.46150	3.34582	2.29552
0.12	1.00496	0.79257	0.79257	0.62	1.13586	2.08355	1.83558	1.12	1.47011	3.37473	2.30283
0.13	1.00582	0.82833	0.82833	0.63	1.14040	2.10582	1.84868	1.13	1.47881	3.40369	2.31016
0.14	1.00675	0.86297	0.86297	0.64	1.14503	2.12795	1.86158	1.14	1.48756	3.43271	2.31751
0.15	1.00775	0.89657	0.89657	0.65	1.14973	2.14982	1.87428	1.15	1.49636	3.46179	2.32486
0.16	1.00882	0.92926	0.92926	0.66	1.15449	2.17143	1.88680	1.16	1.50521	3.49093	2.33222
0.17	1.00996	0.96113	0.96113	0.67	1.15939	2.19282	1.89912	1.17	1.51411	3.52014	2.33959
0.18	1.01116	0.99224	0.99224	0.68	1.16434	2.21396	1.91123	1.18	1.52301	3.54941	2.34697
0.19	1.01244	1.02268	1.02268	0.69	1.16958	2.23486	1.92313	1.19	1.53188	3.57873	2.35436
0.20	1.01379	1.05250	1.05250	0.70	1.17470	2.25548	1.93498	1.20	1.54091	3.60810	2.36176
0.21	1.01521	1.08176	1.08176	0.71	1.17979	2.27583	1.94658	1.21	1.55005	3.63752	2.36918
0.22	1.01670	1.11049	1.11049	0.72	1.18499	2.29593	1.95799	1.22	1.55932	3.66699	2.37662
0.23	1.01825	1.13875	1.13875	0.73	1.19036	2.31578	1.96924	1.23	1.56870	3.69650	2.38407
0.24	1.01988	1.16656	1.16656	0.74	1.19582	2.33531	1.98031	1.24	1.57817	3.72607	2.39153
0.25	1.02158	1.19397	1.19397	0.75	1.20137	2.35456	1.99122	1.25	1.58773	3.75569	2.39900
0.26	1.02335	1.22101	1.22101	0.76	1.20700	2.37343	2.00195	1.26	1.59739	3.78537	2.40648
0.27	1.02519	1.24769	1.24769	0.77	1.21255	2.39196	2.01253	1.27	1.60716	3.81510	2.41397
0.28	1.02709	1.27402	1.27402	0.78	1.21821	2.41023	2.02303	1.28	1.61703	3.84488	2.42147
0.29	1.02903	1.30012	1.30012	0.79	1.22391	2.42826	2.03349	1.29	1.62699	3.87471	2.42897
0.30	1.03114	1.32591	1.32591	0.80	1.22964	2.44603	2.04383	1.30	1.63706	3.90459	2.43647
0.31	1.03324	1.35145	1.35145	0.81	1.23539	2.46355	2.05403	1.31	1.64723	3.93451	2.44397
0.32	1.03546	1.37674	1.37674	0.82	1.24126	2.48083	2.06409	1.32	1.65750	3.96447	2.45147
0.33	1.03773	1.40182	1.40182	0.83	1.24717	2.49786	2.07406	1.33	1.66787	3.99447	2.45897
0.34	1.04007	1.42669	1.42669	0.84	1.25311	2.51463	2.08395	1.34	1.67834	4.02451	2.46647
0.35	1.04248	1.45137	1.45137	0.85	1.25909	2.53115	2.09370	1.35	1.68881	4.05459	2.47397
0.36	1.04497	1.47588	1.47588	0.86	1.26511	2.54743	2.10333	1.36	1.69938	4.08471	2.48147
0.37	1.04753	1.50023	1.50023	0.87	1.27117	2.56346	2.11285	1.37	1.71005	4.11488	2.48897
0.38	1.05016	1.52443	1.52443	0.88	1.27727	2.57923	2.12226	1.38	1.72082	4.14509	2.49647
0.39	1.05286	1.54849	1.54849	0.89	1.28341	2.59475	2.13157	1.39	1.73169	4.17534	2.50397
0.40	1.05564	1.57243	1.57243	0.90	1.28959	2.61003	2.14078	1.40	1.74266	4.20564	2.51147
0.41	1.05849	1.59625	1.59625	0.91	1.29581	2.62506	2.14989	1.41	1.75373	4.23599	2.51897
0.42	1.06142	1.61997	1.61997	0.92	1.30206	2.63983	2.15890	1.42	1.76490	4.26639	2.52647
0.43	1.06441	1.64360	1.64360	0.93	1.30834	2.65435	2.16781	1.43	1.77617	4.29684	2.53397
0.44	1.06749	1.66714	1.66714	0.94	1.31464	2.66863	2.17662	1.44	1.78754	4.32734	2.54147
0.45	1.07064	1.69061	1.69061	0.95	1.32106	2.68266	2.18533	1.45	1.79901	4.35789	2.54897
0.46	1.07386	1.71400	1.71400	0.96	1.32753	2.69643	2.19394	1.46	1.81058	4.38849	2.55647
0.47	1.07715	1.73734	1.73734	0.97	1.33404	2.71003	2.20245	1.47	1.82225	4.41914	2.56397
0.48	1.08050	1.76061	1.76061	0.98	1.34059	2.72343	2.21086	1.48	1.83401	4.44984	2.57147
0.49	1.08398	1.78387	1.78387	0.99	1.34717	2.73663	2.21917	1.49	1.84587	4.48059	2.57897
0.50	1.08750	1.80707	1.80707	1.00	1.35379	2.74963	2.22738	1.50	1.85783	4.51139	2.58647

TABLE 19A. Lanchester-Clifford-Schläfli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and $T_{\alpha}(x)$ for $\alpha = 8/11$ and x from 0.00 to 1.50.

$\alpha = 8/11$

x	$F_{8/11}(x)$	$H_{3/11}(x)$	$T_{8/11}(x)$	x	$F_{8/11}(x)$	$H_{3/11}(x)$	$T_{8/11}(x)$	x	$F_{8/11}(x)$	$H_{3/11}(x)$	$T_{8/11}(x)$
1.50	1.90837	4.70093	2.46333	2.0	2.82508	7.24991	2.56627	6.0	113.24897	298.00235	2.63141
1.51	1.92248	4.74165	2.46643	2.1	3.06999	7.91347	2.57769	6.1	124.65310	328.01160	2.63140
1.52	1.93674	4.78272	2.46948	2.2	3.34005	8.64118	2.58174	6.2	137.21551	361.06817	2.63140
1.53	1.95115	4.82415	2.47247	2.3	3.63768	9.43361	2.59496	6.3	151.05446	397.48501	2.63140
1.54	1.96571	4.86593	2.47541	2.4	3.96555	10.31597	2.60141	6.4	166.30031	437.60336	2.63141
1.55	1.98042	4.90808	2.47830	2.5	4.32655	11.27917	2.60673	6.5	183.09678	481.80202	2.63141
1.56	1.99527	4.95060	2.48114	2.6	4.72398	12.33490	2.61172	6.6	201.97373	530.45709	2.63141
1.57	2.01022	4.99348	2.48392	2.7	5.15911	13.49710	2.61744	6.7	223.47468	583.25726	2.63141
1.58	2.02526	5.03674	2.48669	2.8	5.63723	14.77195	2.62311	6.8	248.12201	640.40177	2.63141
1.59	2.04034	5.08038	2.48953	2.9	6.16004	16.16301	2.62860	6.9	275.47802	702.37254	2.63141
1.60	2.05543	5.12440	2.49199	3.0	6.73028	17.67218	2.63398	7.0	296.54842	780.18621	2.63141
1.61	2.07051	5.16880	2.49458	3.1	7.35033	19.31242	2.63919	7.1	322.54842	859.28354	2.63141
1.62	2.08560	5.21360	2.49713	3.2	8.01199	21.08617	2.64422	7.2	353.61732	946.44814	2.63141
1.63	2.10068	5.25880	2.49963	3.3	8.71692	23.00353	2.64911	7.3	390.17800	1042.50804	2.63141
1.64	2.11598	5.30439	2.50209	3.4	9.47028	25.06633	2.65382	7.4	433.40900	1148.37254	2.63141
1.65	2.13130	5.35038	2.50450	3.5	10.27604	28.03801	2.65836	7.5	483.74802	1265.04698	2.63141
1.66	2.14669	5.39679	2.50687	3.6	11.13596	30.93211	2.66280	7.6	541.67812	1393.97730	2.63141
1.67	2.16219	5.44360	2.50920	3.7	12.05726	33.75231	2.66712	7.7	608.84465	1535.59032	2.63141
1.68	2.17779	5.49089	2.51157	3.8	13.04326	36.60422	2.67136	7.8	686.708186	1691.59032	2.63141
1.69	2.19349	5.53869	2.51393	3.9	14.09636	40.06662	2.67556	7.9	776.92186	1863.78332	2.63141
1.70	2.20929	5.58699	2.51630	4.0	15.22022	44.05057	2.67966	8.0	880.41208	2053.58771	2.63141
1.71	2.22509	5.63579	2.51867	4.1	16.41580	48.05272	2.68366	8.1	859.92199	2262.81185	2.63141
1.72	2.24089	5.68509	2.52104	4.2	17.68336	52.08169	2.68756	8.2	947.55974	2493.44896	2.63141
1.73	2.25669	5.73489	2.52341	4.3	19.02222	56.16332	2.69136	8.3	1044.18024	2747.69760	2.63141
1.74	2.27249	5.78429	2.52578	4.4	20.43022	60.30619	2.69516	8.4	1150.70518	3027.98264	2.63141
1.75	2.28829	5.83369	2.52815	4.5	21.90922	64.51069	2.69896	8.5	1268.13095	3336.97859	2.63141
1.76	2.30409	5.88309	2.53052	4.6	23.45822	68.77619	2.70276	8.6	1396.55950	3686.97859	2.63141
1.77	2.31989	5.93249	2.53289	4.7	25.07722	73.10269	2.70656	8.7	1535.98450	4086.97859	2.63141
1.78	2.33569	5.98189	2.53526	4.8	26.76622	77.49019	2.71036	8.8	1687.41450	4536.97859	2.63141
1.79	2.35149	6.03129	2.53763	4.9	28.52522	81.93769	2.71416	8.9	1851.84450	5036.97859	2.63141
1.80	2.36729	6.08069	2.53999	5.0	30.35422	86.44519	2.71796	9.0	2029.27450	5586.97859	2.63141
1.81	2.38309	6.13009	2.54236	5.1	32.25322	91.01269	2.72176	9.1	2220.70450	6186.97859	2.63141
1.82	2.39889	6.17949	2.54473	5.2	34.22222	95.64019	2.72556	9.2	2426.13450	6836.97859	2.63141
1.83	2.41469	6.22889	2.54709	5.3	36.26122	100.32769	2.72936	9.3	2645.56450	7536.97859	2.63141
1.84	2.43049	6.27829	2.54946	5.4	38.37022	105.07519	2.73316	9.4	2879.99450	8286.97859	2.63141
1.85	2.44629	6.32769	2.55183	5.5	40.54922	109.88269	2.73696	9.5	3129.42450	9086.97859	2.63141
1.86	2.46209	6.37709	2.55419	5.6	42.79822	114.75019	2.74076	9.6	3394.85450	9936.97859	2.63141
1.87	2.47789	6.42649	2.55656	5.7	45.11722	119.67769	2.74456	9.7	3676.28450	10836.97859	2.63141
1.88	2.49369	6.47589	2.55893	5.8	47.50622	124.66519	2.74836	9.8	3973.71450	11886.97859	2.63141
1.89	2.50949	6.52529	2.56129	5.9	50.06522	129.71269	2.75216	9.9	4288.14450	13086.97859	2.63141
1.90	2.52529	6.57469	2.56366	6.0	52.79422	134.83019	2.75596	10.0	4619.57450	14436.97859	2.63141
1.91	2.54109	6.62409	2.56603								
1.92	2.55689	6.67349	2.56840								
1.93	2.57269	6.72289	2.57077								
1.94	2.58849	6.77229	2.57314								
1.95	2.60429	6.82169	2.57551								
1.96	2.61999	6.87109	2.57788								
1.97	2.63579	6.92049	2.58025								
1.98	2.65159	6.96989	2.58262								
1.99	2.66739	7.01929	2.58499								
2.00	2.68319	7.06869	2.58736								

TABLE 19B. Lanchester-Clifford-Schlafli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and

$T_{\alpha}(x)$ for $\alpha = 8/11$ and x from 1.50 to 10.0.

x	$F_{5/13}(x)$	$H_{8/13}(x)$	$T_{5/13}(x)$	x	$F_{5/13}(x)$	$H_{8/13}(x)$	$T_{5/13}(x)$	x	$F_{5/13}(x)$	$H_{8/13}(x)$	$T_{5/13}(x)$
0.0	1.00000	0.0	0.0	0.50	1.16620	0.30658	0.26288	1.00	1.71077	0.80479	0.47043
0.01	1.00007	0.00239	0.00239	0.51	1.17307	0.31492	0.26920	1.01	1.72635	0.81711	0.47332
0.02	1.00026	0.00561	0.00561	0.52	1.18009	0.32379	0.27579	1.02	1.74213	0.82953	0.47616
0.03	1.00059	0.00925	0.00924	0.53	1.18768	0.33292	0.28269	1.03	1.75813	0.84207	0.47896
0.04	1.00104	0.01318	0.01317	0.54	1.19498	0.34238	0.28993	1.04	1.77434	0.85472	0.48171
0.05	1.00163	0.01735	0.01732	0.55	1.20205	0.34750	0.29909	1.05	1.79076	0.86748	0.48442
0.06	1.00234	0.02172	0.02167	0.56	1.20907	0.35589	0.29920	1.06	1.80739	0.88035	0.48709
0.07	1.00319	0.02630	0.02626	0.57	1.21558	0.36435	0.29928	1.07	1.82425	0.89335	0.48978
0.08	1.00419	0.03126	0.03121	0.58	1.22155	0.37289	0.30430	1.08	1.84132	0.90649	0.49251
0.09	1.00527	0.03579	0.03561	0.59	1.22346	0.38149	0.30929	1.09	1.85861	0.91969	0.49523
0.10	1.00651	0.04076	0.04050	0.60	1.22470	0.39017	0.31422	1.10	1.87613	0.93304	0.49732
0.11	1.00787	0.04585	0.04549	0.61	1.22510	0.39927	0.31911	1.11	1.89387	0.94651	0.49978
0.12	1.00937	0.05105	0.05058	0.62	1.22586	0.40774	0.32376	1.12	1.91184	0.96011	0.50219
0.13	1.01100	0.05636	0.05575	0.63	1.22673	0.41664	0.32839	1.13	1.93003	0.97382	0.50456
0.14	1.01276	0.06177	0.06099	0.64	1.22762	0.42561	0.33349	1.14	1.94846	0.98767	0.50690
0.15	1.01465	0.06727	0.06639	0.65	1.22852	0.43466	0.33819	1.15	1.96712	1.00164	0.50919
0.16	1.01668	0.07287	0.07190	0.66	1.22943	0.44378	0.34283	1.16	1.98604	1.01567	0.51145
0.17	1.01883	0.07855	0.07760	0.67	1.23036	0.45295	0.34743	1.17	2.00524	1.02971	0.51378
0.18	1.02112	0.08432	0.08337	0.68	1.23131	0.46225	0.35197	1.18	2.02469	1.04383	0.51616
0.19	1.02354	0.09018	0.08913	0.69	1.23229	0.47160	0.35647	1.19	2.04432	1.05802	0.51858
0.20	1.02609	0.09611	0.09507	0.70	1.23328	0.48103	0.36091	1.20	2.06414	1.07235	0.52099
0.21	1.02878	0.10212	0.09927	0.71	1.23429	0.49054	0.36535	1.21	2.08406	1.08682	0.52346
0.22	1.03160	0.10821	0.10490	0.72	1.23532	0.50014	0.36979	1.22	2.10411	1.10141	0.52599
0.23	1.03455	0.11439	0.11052	0.73	1.23638	0.50981	0.37424	1.23	2.12430	1.11614	0.52815
0.24	1.03764	0.12062	0.11624	0.74	1.23746	0.51953	0.37871	1.24	2.14464	1.13102	0.53039
0.25	1.04085	0.12693	0.12194	0.75	1.23855	0.52930	0.38320	1.25	2.16514	1.14604	0.53269
0.26	1.04417	0.13331	0.12836	0.76	1.23965	0.53912	0.38769	1.26	2.18579	1.16129	0.53495
0.27	1.04760	0.13974	0.13481	0.77	1.24076	0.54901	0.39217	1.27	2.20659	1.17677	0.53718
0.28	1.05112	0.14628	0.14139	0.78	1.24188	0.55898	0.39660	1.28	2.22751	1.19247	0.53938
0.29	1.05474	0.15287	0.14789	0.79	1.24303	0.56903	0.39658	1.29	2.24864	1.20839	0.54155
0.30	1.05848	0.15953	0.15465	0.80	1.24420	0.57914	0.40051	1.30	2.26997	1.22442	0.54372
0.31	1.06234	0.16626	0.16140	0.81	1.24538	0.58939	0.40438	1.31	2.29159	1.24063	0.54595
0.32	1.06631	0.17305	0.16819	0.82	1.24657	0.60000	0.40823	1.32	2.31342	1.25708	0.54815
0.33	1.07048	0.17991	0.17491	0.83	1.24777	0.61087	0.41206	1.33	2.33543	1.27379	0.55032
0.34	1.07493	0.18683	0.18165	0.84	1.24899	0.62177	0.41570	1.34	2.35761	1.29076	0.55246
0.35	1.07953	0.19383	0.18863	0.85	1.25022	0.63278	0.41929	1.35	2.38007	1.30797	0.55457
0.36	1.08429	0.20089	0.19569	0.86	1.25146	0.64389	0.42288	1.36	2.40272	1.32541	0.55663
0.37	1.08920	0.20800	0.20282	0.87	1.25272	0.65518	0.42645	1.37	2.42555	1.34309	0.55865
0.38	1.09426	0.21519	0.20999	0.88	1.25399	0.66657	0.43006	1.38	2.44855	1.36091	0.56063
0.39	1.09949	0.22245	0.22119	0.89	1.25527	0.67805	0.43353	1.39	2.47172	1.37891	0.56255
0.40	1.10551	0.22977	0.22784	0.90	1.25651	0.68974	0.43695	1.40	2.49514	1.39655	0.56444
0.41	1.11190	0.23715	0.23547	0.91	1.25779	0.70169	0.44031	1.41	2.51884	1.41336	0.56633
0.42	1.11850	0.24460	0.24308	0.92	1.25909	0.71392	0.44363	1.42	2.54282	1.43035	0.56825
0.43	1.12520	0.25212	0.25066	0.93	1.26040	0.72635	0.44690	1.43	2.56709	1.44750	0.57015
0.44	1.13205	0.25970	0.25822	0.94	1.26172	0.73895	0.45012	1.44	2.59164	1.46483	0.57205
0.45	1.13905	0.26734	0.26574	0.95	1.26305	0.75169	0.45329	1.45	2.61644	1.48234	0.57395
0.46	1.14620	0.27506	0.27346	0.96	1.26439	0.76458	0.45643	1.46	2.64149	1.50002	0.57585
0.47	1.15350	0.28286	0.28126	0.97	1.26574	0.77760	0.45953	1.47	2.66679	1.51789	0.57775
0.48	1.16094	0.29068	0.28908	0.98	1.26709	0.79074	0.46259	1.48	2.69234	1.53591	0.57965
0.49	1.16854	0.29859	0.29699	0.99	1.26844	0.80404	0.46564	1.49	2.71814	1.55407	0.58155
0.50	1.16620	0.30658	0.26288	1.00	1.71077	0.80479	0.47043	1.50	2.78392	1.58258	0.58477

TABLE 20A. Lanchester-Clifford-Schlafli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and $T_{\alpha}(x)$ for $\alpha = 5/13$ and x from 0.00 to 1.50.

$\alpha = 5/13$

x	$F_{5/13}(x)$	$H_{8/13}(x)$	$T_{5/13}(x)$	x	$F_{5/13}(x)$	$H_{8/13}(x)$	$T_{5/13}(x)$	x	$F_{5/13}(x)$	$H_{8/13}(x)$	$T_{5/13}(x)$
1.50	2.78392	1.58258	0.56847	2.0	4.68028	2.84199	0.60223	6.0	234.89297	185.74572	0.63001
1.51	2.81250	1.60219	0.56967	2.1	5.19867	3.17830	0.61137	6.1	336.52983	203.61120	0.63001
1.52	2.84139	1.62199	0.57084	2.2	5.71720	3.50530	0.61956	6.2	438.16405	221.47640	0.63001
1.53	2.87062	1.64197	0.57199	2.3	6.23571	3.83239	0.62774	6.3	539.79821	239.34160	0.63001
1.54	2.90017	1.66216	0.57312	2.4	6.75422	4.15948	0.63591	6.4	641.43246	257.20680	0.63001
1.55	2.93006	1.68254	0.57423	2.5	7.27273	4.48657	0.64408	6.5	743.06670	275.07200	0.63001
1.56	2.96029	1.70311	0.57532	2.6	7.79124	4.81366	0.65225	6.6	844.70100	292.93720	0.63001
1.57	2.99086	1.72389	0.57639	2.7	8.30975	5.14075	0.66042	6.7	946.33530	310.80240	0.63001
1.58	3.02177	1.74488	0.57743	2.8	8.82826	5.46784	0.66845	6.8	1047.96950	328.66760	0.63001
1.59	3.05304	1.76606	0.57846	2.9	9.34677	5.79493	0.67648	6.9	1149.60370	346.53280	0.63001
1.60	3.08465	1.78746	0.57947	3.0	9.86528	6.12202	0.68451	7.0	1251.23790	364.39800	0.63002
1.61	3.11661	1.80906	0.58049	3.1	10.38379	6.44911	0.69254	7.1	1352.87210	382.26320	0.63002
1.62	3.14894	1.83088	0.58143	3.2	10.90230	6.77620	0.70057	7.2	1454.50630	400.12840	0.63002
1.63	3.18162	1.85291	0.58238	3.3	11.42081	7.10329	0.70860	7.3	1556.14050	417.99360	0.63002
1.64	3.21467	1.87516	0.58331	3.4	11.93932	7.43038	0.71663	7.4	1657.77470	435.85880	0.63002
1.65	3.24809	1.89763	0.58423	3.5	12.45783	7.75747	0.72466	7.5	1759.40890	453.72400	0.63002
1.66	3.28188	1.92032	0.58511	3.6	12.97634	8.08456	0.73269	7.6	1861.04310	471.58920	0.63002
1.67	3.31605	1.94323	0.58601	3.7	13.49485	8.41165	0.74072	7.7	1962.67730	489.45440	0.63002
1.68	3.35059	1.96637	0.58687	3.8	14.01336	8.73874	0.74875	7.8	2064.31150	507.31960	0.63002
1.69	3.38552	1.98973	0.58772	3.9	14.53187	9.06583	0.75678	7.9	2165.94570	525.18480	0.63002
1.70	3.42093	2.01333	0.58855	4.0	15.05038	9.39292	0.76481	8.0	2267.57990	543.05000	0.63002
1.71	3.45684	2.03716	0.58936	4.1	15.56889	9.72001	0.77284	8.1	2369.21410	560.91520	0.63002
1.72	3.49326	2.06123	0.59016	4.2	16.08740	10.04710	0.78087	8.2	2470.84830	578.78040	0.63002
1.73	3.53019	2.08554	0.59095	4.3	16.60591	10.37419	0.78890	8.3	2572.48250	596.64560	0.63002
1.74	3.56663	2.11008	0.59172	4.4	17.12442	10.70128	0.79693	8.4	2674.11670	614.51080	0.63002
1.75	3.60344	2.13487	0.59247	4.5	17.64293	11.02837	0.80496	8.5	2775.75090	632.37600	0.63002
1.76	3.64055	2.15991	0.59321	4.6	18.16144	11.35546	0.81299	8.6	2877.38510	650.24120	0.63002
1.77	3.67798	2.18520	0.59394	4.7	18.67995	11.68255	0.82102	8.7	2979.01930	668.10640	0.63002
1.78	3.71572	2.21074	0.59465	4.8	19.19846	12.00964	0.82905	8.8	3080.65350	685.97160	0.63002
1.79	3.75369	2.23653	0.59535	4.9	19.71697	12.33673	0.83708	8.9	3182.28770	703.83680	0.63002
1.80	3.79088	2.26258	0.59603	5.0	20.23548	12.66382	0.84511	9.0	3283.92190	721.70200	0.63002
1.81	3.82831	2.28889	0.59670	5.1	20.75399	12.99091	0.85314	9.1	3385.55610	739.56720	0.63002
1.82	3.86596	2.31546	0.59736	5.2	21.27250	13.31800	0.86117	9.2	3487.19030	757.43240	0.63002
1.83	3.90381	2.34229	0.59800	5.3	21.79101	13.64509	0.86920	9.3	3588.82450	775.29760	0.63002
1.84	3.94081	2.36940	0.59863	5.4	22.30952	13.97218	0.87723	9.4	3690.45870	793.16280	0.63002
1.85	3.97809	2.39678	0.59925	5.5	22.82803	14.29927	0.88526	9.5	3792.09290	811.02800	0.63002
1.86	4.01463	2.42443	0.59986	5.6	23.34654	14.62636	0.89329	9.6	3893.72710	828.89320	0.63002
1.87	4.05133	2.45235	0.60046	5.7	23.86505	14.95345	0.90132	9.7	3995.36130	846.75840	0.63002
1.88	4.08813	2.48056	0.60104	5.8	24.38356	15.28054	0.90935	9.8	4096.99550	864.62360	0.63002
1.89	4.12509	2.50905	0.60162	5.9	24.90207	15.60763	0.91738	9.9	4198.62970	882.48880	0.63002
1.90	4.16214	2.53783	0.60218	6.0	25.42058	15.93472	0.92541	10.0	4299.26390	900.35400	0.63002
1.91	4.20038	2.56689	0.60273								
1.92	4.23881	2.59625	0.60327								
1.93	4.27744	2.62590	0.60380								
1.94	4.31627	2.65585	0.60432								
1.95	4.35530	2.68610	0.60484								
1.96	4.39452	2.71660	0.60533								
1.97	4.43394	2.74732	0.60582								
1.98	4.47355	2.77827	0.60630								
1.99	4.51334	2.80945	0.60677								
2.00	4.55330	2.84088	0.60723								

TABLE 20B. Lanchester-Clifford-Schlöfli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and

$T_{\alpha}(x)$ for $\alpha = 5/13$ and x from 1.50 to 10.0.

x	$F_{8/13}(x)$	$H_{5/13}(x)$	$T_{8/13}(x)$	x	$F_{8/13}(x)$	$H_{5/13}(x)$	$T_{8/13}(x)$	x	$F_{8/13}(x)$	$H_{5/13}(x)$	$T_{8/13}(x)$
0.0	1.00000	0.0	0.0	0.50	1.10334	0.93599	0.84817	1.0	1.3871	1.8173	1.26206
0.01	1.00004	0.04415	0.04415	0.51	1.10771	0.92809	0.85941	1.01	1.39231	1.82368	1.26469
0.02	1.00019	0.07326	0.07326	0.52	1.11216	0.92027	0.87051	1.02	1.39759	1.83009	1.26732
0.03	1.00065	0.12689	0.12681	0.53	1.11662	0.91241	0.88147	1.03	1.40289	1.83649	1.26995
0.04	1.00142	0.15234	0.15219	0.54	1.12106	0.90457	0.89230	1.04	1.40817	1.84289	1.27258
0.05	1.00199	0.17531	0.17506	0.55	1.12550	1.01659	0.90300	1.05	1.41345	1.84929	1.27521
0.06	1.00260	0.19743	0.19704	0.56	1.13002	1.02860	0.91356	1.06	1.41873	1.85569	1.27784
0.07	1.00329	0.21884	0.21838	0.57	1.13454	1.04062	0.92399	1.07	1.42401	1.86209	1.28047
0.08	1.00399	0.23967	0.23889	0.58	1.13906	1.05264	0.93429	1.08	1.42929	1.86849	1.28310
0.09	1.00470	0.25999	0.25894	0.59	1.14357	1.06466	0.94446	1.09	1.43457	1.87489	1.28573
0.10	1.00542	0.27998	0.27851	0.60	1.14808	1.07668	0.95450	1.10	1.43985	1.88129	1.28836
0.11	1.00614	0.29958	0.29763	0.61	1.15259	1.08870	0.96444	1.11	1.44513	1.88769	1.29099
0.12	1.00687	0.31878	0.31636	0.62	1.15710	1.09991	0.97420	1.12	1.45041	1.89409	1.29362
0.13	1.00761	0.33758	0.33471	0.63	1.16161	1.11112	0.98396	1.13	1.45569	1.90049	1.29625
0.14	1.00835	0.35596	0.35273	0.64	1.16612	1.12233	0.99359	1.14	1.46097	1.90689	1.29888
0.15	1.00910	0.37408	0.37042	0.65	1.17063	1.13354	1.00300	1.15	1.46625	1.91329	1.30151
0.16	1.01042	0.39229	0.38782	0.66	1.17514	1.14475	1.01256	1.16	1.47153	1.91969	1.30414
0.17	1.01177	0.41088	0.40594	0.67	1.17965	1.15596	1.02211	1.17	1.47681	1.92609	1.30677
0.18	1.01311	0.42979	0.42419	0.68	1.18416	1.16717	1.03166	1.18	1.48209	1.93249	1.30940
0.19	1.01447	0.44899	0.44279	0.69	1.18867	1.17838	1.04121	1.19	1.48737	1.93889	1.31203
0.20	1.01583	0.46839	0.46179	0.70	1.19318	1.18959	1.05076	1.20	1.49265	1.94529	1.31466
0.21	1.01720	0.48799	0.48079	0.71	1.19769	1.20080	1.06031	1.21	1.49793	1.95169	1.31729
0.22	1.01857	0.50779	0.50019	0.72	1.20220	1.21201	1.06986	1.22	1.50321	1.95809	1.31992
0.23	1.01994	0.52779	0.51919	0.73	1.20671	1.22322	1.07941	1.23	1.50849	1.96449	1.32255
0.24	1.02131	0.54799	0.53879	0.74	1.21122	1.23443	1.08896	1.24	1.51377	1.97089	1.32518
0.25	1.02268	0.56839	0.55859	0.75	1.21573	1.24564	1.09851	1.25	1.51905	1.97729	1.32781
0.26	1.02405	0.58899	0.57859	0.76	1.22024	1.25685	1.10806	1.26	1.52433	1.98369	1.33044
0.27	1.02542	0.60979	0.59879	0.77	1.22475	1.26806	1.11761	1.27	1.52961	1.99009	1.33307
0.28	1.02679	0.63079	0.61919	0.78	1.22926	1.27927	1.12716	1.28	1.53489	1.99649	1.33570
0.29	1.02816	0.65199	0.63979	0.79	1.23377	1.29048	1.13671	1.29	1.54017	2.00289	1.33833
0.30	1.02953	0.67339	0.66139	0.80	1.23828	1.30169	1.14626	1.30	1.54545	2.00929	1.34096
0.31	1.03090	0.69499	0.68239	0.81	1.24279	1.31290	1.15581	1.31	1.55073	2.01569	1.34359
0.32	1.03227	0.71679	0.70379	0.82	1.24730	1.32411	1.16536	1.32	1.55601	2.02209	1.34622
0.33	1.03364	0.73879	0.72539	0.83	1.25181	1.33532	1.17491	1.33	1.56129	2.02849	1.34885
0.34	1.03501	0.76099	0.74719	0.84	1.25632	1.34653	1.18446	1.34	1.56657	2.03489	1.35148
0.35	1.03638	0.78339	0.76919	0.85	1.26083	1.35774	1.19401	1.35	1.57185	2.04129	1.35411
0.36	1.03775	0.80599	0.79139	0.86	1.26534	1.36895	1.20356	1.36	1.57713	2.04769	1.35674
0.37	1.03912	0.82879	0.81379	0.87	1.26985	1.38016	1.21311	1.37	1.58241	2.05409	1.35937
0.38	1.04049	0.85179	0.83679	0.88	1.27436	1.39137	1.22266	1.38	1.58769	2.06049	1.36200
0.39	1.04186	0.87499	0.85959	0.89	1.27887	1.40258	1.23221	1.39	1.59297	2.06689	1.36463
0.40	1.04323	0.89839	0.88279	0.90	1.28338	1.41379	1.24176	1.40	1.59825	2.07329	1.36726
0.41	1.04460	0.92199	0.90639	0.91	1.28789	1.42500	1.25131	1.41	1.60353	2.07969	1.36989
0.42	1.04597	0.94579	0.93019	0.92	1.29240	1.43621	1.26086	1.42	1.60881	2.08609	1.37252
0.43	1.04734	0.96979	0.95419	0.93	1.29691	1.44742	1.27041	1.43	1.61409	2.09249	1.37515
0.44	1.04871	0.99399	0.97859	0.94	1.30142	1.45863	1.28006	1.44	1.61937	2.09889	1.37778
0.45	1.05008	1.01839	1.00299	0.95	1.30593	1.46984	1.28961	1.45	1.62465	2.10529	1.38041
0.46	1.05145	1.04299	1.02759	0.96	1.31044	1.48105	1.29916	1.46	1.62993	2.11169	1.38304
0.47	1.05282	1.06779	1.05239	0.97	1.31495	1.49226	1.30871	1.47	1.63521	2.11809	1.38567
0.48	1.05419	1.09279	1.07719	0.98	1.31946	1.50347	1.31826	1.48	1.64049	2.12449	1.38830
0.49	1.05556	1.11799	1.10239	0.99	1.32397	1.51468	1.32781	1.49	1.64577	2.13089	1.39093
0.50	1.10354	0.93599	0.84817	1.00	1.43871	1.81573	1.26206	1.50	2.08507	3.03597	1.45605

TABLE 21A. Lanchester-Clifford-Schlafli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and $T_{\alpha}(x)$ for $\alpha = 8/13$ and x from 0.00 to 1.50.

$\alpha = 8/13$

x	$F_{8/13}(x)$	$H_{5/13}(x)$	$T_{8/13}(x)$	x	$F_{8/13}(x)$	$H_{5/13}(x)$	$T_{8/13}(x)$	x	$F_{8/13}(x)$	$H_{5/13}(x)$	$T_{8/13}(x)$
1.50	2.08507	3.03597	1.45605	2.0	3.15671	4.91258	1.53676	6.0	147.24132	233.70773	1.58726
1.51	2.10208	3.06585	1.45849	2.1	3.45771	5.40323	1.53507	6.1	162.38864	257.75040	1.58726
1.52	2.11926	3.09599	1.46089	2.2	3.80624	5.94223	1.53304	6.2	179.50035	287.76458	1.58726
1.53	2.13664	3.11707	1.46323	2.3	4.21223	6.52491	1.53072	6.3	197.56451	317.76458	1.58726
1.54	2.15420	3.13040	1.46554	2.4	4.54669	7.16880	1.52813	6.4	217.68718	347.76458	1.58726
1.55	2.17195	3.18801	1.46781	2.5	5.03987	7.90380	1.52626	6.5	240.33475	381.77183	1.58726
1.56	2.18980	3.23922	1.47004	2.6	5.51177	8.69307	1.52415	6.6	265.10526	420.78930	1.58726
1.57	2.20782	3.28248	1.47223	2.7	6.01224	9.56199	1.52169	6.7	291.43796	464.78930	1.58726
1.58	2.22605	3.34239	1.47438	2.8	6.61122	10.51881	1.51888	6.8	322.59848	512.04660	1.58726
1.59	2.24447	3.41910	1.47649	2.9	7.33080	11.57263	1.51674	6.9	358.58005	564.87266	1.58726
1.60	2.26359	3.50986	1.47856	3.0	8.08222	12.73345	1.51430	7.0	392.66634	623.16688	1.58726
1.61	2.28343	3.59486	1.48060	3.1	8.86941	14.01234	1.51155	7.1	424.82777	686.49277	1.58726
1.62	2.30403	3.67456	1.48260	3.2	9.70041	15.41737	1.50850	7.2	456.07594	754.82777	1.58726
1.63	2.32538	3.74956	1.48456	3.3	10.57598	16.86553	1.50506	7.3	486.42154	828.16689	1.58726
1.64	2.34742	3.81910	1.48649	3.4	11.49598	18.36553	1.50130	7.4	515.86899	906.51254	1.58726
1.65	2.36015	3.88339	1.48839	3.5	12.46951	20.01760	1.49729	7.5	544.41710	989.82777	1.58726
1.66	2.37350	3.94248	1.49024	3.6	13.49555	21.82509	1.49294	7.6	572.06474	1078.16689	1.58726
1.67	2.38741	3.99681	1.49204	3.7	14.57313	23.79208	1.48829	7.7	598.81254	1171.51254	1.58726
1.68	2.40181	4.04681	1.49386	3.8	15.70242	25.91736	1.48336	7.8	624.66034	1269.82777	1.58726
1.69	2.41675	4.09281	1.49562	3.9	16.88342	28.20235	1.47806	7.9	649.60899	1373.16689	1.58726
1.70	2.43224	4.13524	1.49735	4.0	18.11691	30.64736	1.47241	8.0	673.65682	1481.51254	1.58726
1.71	2.44829	4.17456	1.49905	4.1	19.40333	33.25370	1.46646	8.1	696.80474	1594.82777	1.58726
1.72	2.46490	4.21041	1.50072	4.2	20.74457	36.02094	1.46029	8.2	719.05254	1713.16689	1.58726
1.73	2.48209	4.24324	1.50235	4.3	22.14072	38.94836	1.45394	8.3	740.40034	1836.51254	1.58726
1.74	2.49984	4.27356	1.50396	4.4	23.59202	42.03631	1.44741	8.4	760.84810	1964.82777	1.58726
1.75	2.51815	4.30081	1.50554	4.5	25.09842	45.28436	1.44079	8.5	780.39594	2098.16689	1.58726
1.76	2.53700	4.32553	1.50708	4.6	26.66004	48.69208	1.43410	8.6	799.04374	2236.51254	1.58726
1.77	2.55639	4.34724	1.50860	4.7	28.27672	52.26036	1.42736	8.7	816.79154	2379.82777	1.58726
1.78	2.57631	4.36641	1.51009	4.8	29.94842	55.98836	1.42060	8.8	833.63934	2528.16689	1.58726
1.79	2.59675	4.38356	1.51156	4.9	31.67504	59.87636	1.41386	8.9	849.58710	2681.51254	1.58726
1.80	2.61770	4.40000	1.51300	5.0	33.45672	63.92436	1.40710	9.0	864.63494	2839.82777	1.58726
1.81	2.63915	4.41584	1.51441	5.1	35.29342	68.14236	1.40036	9.1	878.78274	2993.16689	1.58726
1.82	2.66110	4.43124	1.51579	5.2	37.18512	72.53036	1.39360	9.2	892.03054	3151.51254	1.58726
1.83	2.68355	4.44624	1.51715	5.3	39.13182	77.08836	1.38686	9.3	904.37834	3314.82777	1.58726
1.84	2.70650	4.46084	1.51849	5.4	41.13352	81.81636	1.38010	9.4	915.82610	3482.16689	1.58726
1.85	2.73005	4.47504	1.51980	5.5	43.19022	86.71436	1.37336	9.5	926.37394	3654.51254	1.58726
1.86	2.75420	4.48884	1.52109	5.6	45.30192	91.78236	1.36660	9.6	936.02174	3831.82777	1.58726
1.87	2.77895	4.50224	1.52235	5.7	47.46862	96.92036	1.35986	9.7	944.76954	4014.16689	1.58726
1.88	2.80430	4.51524	1.52358	5.8	49.69032	102.22836	1.35310	9.8	952.61734	4201.51254	1.58726
1.89	2.83025	4.52784	1.52480	5.9	51.96702	107.69636	1.34636	9.9	959.56510	4393.82777	1.58726
1.90	2.85680	4.54004	1.52599	6.0	54.29872	113.32436	1.33960	10.0	965.61294	4591.16689	1.58726
1.91	2.88395	4.55184	1.52716								
1.92	2.91170	4.56324	1.52831								
1.93	2.94005	4.57424	1.52944								
1.94	2.96890	4.58484	1.53054								
1.95	2.99825	4.59504	1.53163								
1.96	3.02810	4.60484	1.53269								
1.97	3.05845	4.61424	1.53374								
1.98	3.08930	4.62324	1.53476								
1.99	3.12065	4.63184	1.53577								
2.00	3.15250	4.64004	1.53676								

TABLE 21B. Lanchester-Clifford-Schlafli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and $T_{\alpha}(x)$ for $\alpha = 8/13$ and x from 1.50 to 10.0.

x	$F_{5/17}(x)$	$H_{12/17}(x)$	$T_{5/17}(x)$	x	$F_{5/17}(x)$	$H_{12/17}(x)$	$T_{5/17}(x)$	x	$F_{5/17}(x)$	$H_{12/17}(x)$	$T_{5/17}(x)$
0.0	1.00000	0.00000	0.00000	0.50	1.21768	0.20754	0.17044	1.00	1.93514	0.81418	0.31739
0.01	1.00009	0.00090	0.00090	0.51	1.22699	0.21374	0.17424	1.01	1.95575	0.82466	0.32466
0.02	1.00017	0.00177	0.00177	0.52	1.23631	0.22005	0.17804	1.02	1.97646	0.83515	0.33193
0.03	1.00026	0.00266	0.00265	0.53	1.24562	0.22636	0.18184	1.03	1.99717	0.84564	0.33920
0.04	1.00036	0.00366	0.00365	0.54	1.25492	0.23267	0.18564	1.04	2.01788	0.85613	0.34647
0.05	1.00046	0.00466	0.00465	0.55	1.26422	0.23898	0.18944	1.05	2.03859	0.86662	0.35374
0.06	1.00056	0.00566	0.00565	0.56	1.27352	0.24529	0.19324	1.06	2.05930	0.87711	0.36101
0.07	1.00066	0.00666	0.00665	0.57	1.28282	0.25160	0.19704	1.07	2.07999	0.88760	0.36828
0.08	1.00076	0.00766	0.00765	0.58	1.29212	0.25791	0.20084	1.08	2.10069	0.89809	0.37555
0.09	1.00086	0.00866	0.00865	0.59	1.30142	0.26422	0.20464	1.09	2.12139	0.90858	0.38282
0.10	1.00096	0.00966	0.00965	0.60	1.31072	0.27053	0.20844	1.10	2.14209	0.91907	0.39009
0.11	1.00106	0.01066	0.01065	0.61	1.32002	0.27684	0.21224	1.11	2.16279	0.92956	0.39736
0.12	1.00116	0.01166	0.01165	0.62	1.32932	0.28315	0.21604	1.12	2.18349	0.94005	0.40463
0.13	1.00126	0.01266	0.01265	0.63	1.33862	0.28946	0.21984	1.13	2.20419	0.95054	0.41190
0.14	1.00136	0.01366	0.01365	0.64	1.34792	0.29577	0.22364	1.14	2.22489	0.96103	0.41917
0.15	1.00146	0.01466	0.01465	0.65	1.35722	0.30208	0.22744	1.15	2.24559	0.97152	0.42644
0.16	1.00156	0.01566	0.01565	0.66	1.36652	0.30839	0.23124	1.16	2.26629	0.98201	0.43371
0.17	1.00166	0.01666	0.01665	0.67	1.37582	0.31470	0.23504	1.17	2.28699	0.99250	0.44098
0.18	1.00176	0.01766	0.01765	0.68	1.38512	0.32101	0.23884	1.18	2.30769	1.00299	0.44825
0.19	1.00186	0.01866	0.01865	0.69	1.39442	0.32732	0.24264	1.19	2.32839	1.01348	0.45552
0.20	1.00196	0.01966	0.01965	0.70	1.40372	0.33363	0.24644	1.20	2.34909	1.02397	0.46279
0.21	1.00206	0.02066	0.02065	0.71	1.41302	0.33994	0.25024	1.21	2.36979	1.03446	0.47006
0.22	1.00216	0.02166	0.02165	0.72	1.42232	0.34625	0.25404	1.22	2.39049	1.04495	0.47733
0.23	1.00226	0.02266	0.02265	0.73	1.43162	0.35256	0.25784	1.23	2.41119	1.05544	0.48460
0.24	1.00236	0.02366	0.02365	0.74	1.44092	0.35887	0.26164	1.24	2.43189	1.06593	0.49187
0.25	1.00246	0.02466	0.02465	0.75	1.45022	0.36518	0.26544	1.25	2.45259	1.07642	0.49914
0.26	1.00256	0.02566	0.02565	0.76	1.45952	0.37149	0.26924	1.26	2.47329	1.08691	0.50641
0.27	1.00266	0.02666	0.02665	0.77	1.46882	0.37780	0.27304	1.27	2.49399	1.09740	0.51368
0.28	1.00276	0.02766	0.02765	0.78	1.47812	0.38411	0.27684	1.28	2.51469	1.10789	0.52095
0.29	1.00286	0.02866	0.02865	0.79	1.48742	0.39042	0.28064	1.29	2.53539	1.11838	0.52822
0.30	1.00296	0.02966	0.02965	0.80	1.49672	0.39673	0.28444	1.30	2.55609	1.12887	0.53549
0.31	1.00306	0.03066	0.03065	0.81	1.50602	0.40304	0.28824	1.31	2.57679	1.13936	0.54276
0.32	1.00316	0.03166	0.03165	0.82	1.51532	0.40935	0.29204	1.32	2.59749	1.14985	0.55003
0.33	1.00326	0.03266	0.03265	0.83	1.52462	0.41566	0.29584	1.33	2.61819	1.16034	0.55730
0.34	1.00336	0.03366	0.03365	0.84	1.53392	0.42197	0.29964	1.34	2.63889	1.17083	0.56457
0.35	1.00346	0.03466	0.03465	0.85	1.54322	0.42828	0.30344	1.35	2.65959	1.18132	0.57184
0.36	1.00356	0.03566	0.03565	0.86	1.55252	0.43459	0.30724	1.36	2.68029	1.19181	0.57911
0.37	1.00366	0.03666	0.03665	0.87	1.56182	0.44090	0.31104	1.37	2.70099	1.20230	0.58638
0.38	1.00376	0.03766	0.03765	0.88	1.57112	0.44721	0.31484	1.38	2.72169	1.21279	0.59365
0.39	1.00386	0.03866	0.03865	0.89	1.58042	0.45352	0.31864	1.39	2.74239	1.22328	0.60092
0.40	1.00396	0.03966	0.03965	0.90	1.58972	0.45983	0.32244	1.40	2.76309	1.23377	0.60819
0.41	1.00406	0.04066	0.04065	0.91	1.59902	0.46614	0.32624	1.41	2.78379	1.24426	0.61546
0.42	1.00416	0.04166	0.04165	0.92	1.60832	0.47245	0.33004	1.42	2.80449	1.25475	0.62273
0.43	1.00426	0.04266	0.04265	0.93	1.61762	0.47876	0.33384	1.43	2.82519	1.26524	0.63000
0.44	1.00436	0.04366	0.04365	0.94	1.62692	0.48507	0.33764	1.44	2.84589	1.27573	0.63727
0.45	1.00446	0.04466	0.04465	0.95	1.63622	0.49138	0.34144	1.45	2.86659	1.28622	0.64454
0.46	1.00456	0.04566	0.04565	0.96	1.64552	0.49769	0.34524	1.46	2.88729	1.29671	0.65181
0.47	1.00466	0.04666	0.04665	0.97	1.65482	0.50400	0.34904	1.47	2.90799	1.30720	0.65908
0.48	1.00476	0.04766	0.04765	0.98	1.66412	0.51031	0.35284	1.48	2.92869	1.31769	0.66635
0.49	1.00486	0.04866	0.04865	0.99	1.67342	0.51662	0.35664	1.49	2.94939	1.32818	0.67362
0.50	1.00496	0.04966	0.04965	1.00	1.68272	0.52293	0.36044	1.50	2.97009	1.33867	0.68089

TABLE 22A. Lanchester-Clifford-Schlafli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and

$T_{\alpha}(x)$ for $\alpha = 5/17$ and x from 0.00 to 1.50.

$\alpha = 5/17$

x	$F_{5/17}(x)$	$H_{12/17}(x)$	$T_{5/17}(x)$	x	$F_{5/17}(x)$	$T_{5/17}(x)$	x	$F_{5/17}(x)$	$H_{12/17}(x)$	$T_{5/17}(x)$
1.50	3.36360	1.28905	0.38324	2.0	5.91969	2.41514	6.0	426.03496	179.75802	0.42194
1.51	3.40185	1.30936	0.38401	2.1	6.43356	2.71940	6.1	472.63180	199.42380	0.42194
1.52	3.43957	1.32883	0.38478	2.2	7.00930	3.05717	6.2	521.22540	221.22540	0.42194
1.53	3.47697	1.34749	0.38552	2.3	7.64271	3.43221	6.3	571.71066	245.33310	0.42194
1.54	3.51421	1.36533	0.38626	2.4	8.32655	3.84861	6.4	624.07120	272.38447	0.42194
1.55	3.55933	1.37736	0.38697	2.5	9.06068	4.31119	6.5	715.45078	301.88102	0.42195
1.56	3.59881	1.38937	0.38768	2.6	11.57115	4.82440	6.6	795.46071	334.79717	0.42195
1.57	3.64081	1.40139	0.38837	2.7	12.88936	5.39547	6.7	875.92479	371.28051	0.42195
1.58	3.68249	1.41334	0.38904	2.8	14.38218	6.02922	6.8	975.75548	411.71604	0.42195
1.59	3.72421	1.42513	0.38970	2.9	16.04211	6.73315	6.9	1081.96340	456.53021	0.42195
1.60	3.76661	1.43731	0.39035	3.0	17.88748	7.51501	7.0	1199.66792	506.19532	0.42195
1.61	3.80950	1.44948	0.39099	3.1	19.93339	8.38033	7.1	1330.18877	561.23469	0.42195
1.62	3.85299	1.46161	0.39161	3.2	22.18000	9.34785	7.2	1474.63920	622.72705	0.42195
1.63	3.89617	1.47372	0.39223	3.3	24.75072	10.41886	7.3	1633.93273	692.79148	0.42195
1.64	3.93917	1.48581	0.39283	3.4	27.56449	11.60894	7.4	1811.33367	764.70189	0.42195
1.65	3.98660	1.49817	0.39341	3.5	30.69009	12.92930	7.5	2009.00727	847.69373	0.42195
1.66	4.03166	1.51083	0.39399	3.6	34.16164	14.39554	7.6	2226.92552	939.64367	0.42195
1.67	4.07383	1.52374	0.39455	3.7	38.01697	16.02436	7.7	2468.31571	1041.52284	0.42195
1.68	4.11709	1.53693	0.39511	3.8	42.29805	17.83227	7.8	2735.89079	1154.40000	0.42195
1.69	4.17079	1.55016	0.39565	3.9	47.05138	19.83931	7.9	3033.27566	1279.45867	0.42195
1.70	4.21830	1.56120	0.39618	4.0	52.32855	22.06726	8.0	3360.63634	1418.00944	0.42195
1.71	4.26634	1.57245	0.39670	4.1	58.16673	24.54035	8.1	3728.41224	1571.20233	0.42195
1.72	4.31492	1.58392	0.39721	4.2	64.68931	27.28504	8.2	4137.83293	1739.32242	0.42195
1.73	4.36405	1.59562	0.39772	4.3	71.96636	30.37118	8.3	4587.83293	1923.56812	0.42195
1.74	4.41373	1.60754	0.39820	4.4	79.96636	33.71185	8.4	5068.40267	2138.55612	0.42195
1.75	4.46398	1.61969	0.39868	4.5	88.80500	37.46517	8.5	5616.23411	2369.75177	0.42195
1.76	4.51478	1.63207	0.39915	4.6	98.66820	41.62554	8.6	6223.07069	2625.80453	0.42195
1.77	4.56616	1.64468	0.39961	4.7	109.61201	46.24359	8.7	6895.25115	2909.42862	0.42195
1.78	4.61812	1.65751	0.40006	4.8	121.73394	51.36783	8.8	7633.79352	3223.58619	0.42195
1.79	4.67066	1.67061	0.40050	4.9	135.22424	57.05212	8.9	8464.46804	3571.55477	0.42195
1.80	4.72379	1.68394	0.40094	5.0	150.16726	63.35776	9.0	9377.87767	3956.96533	0.42195
1.81	4.77751	1.69751	0.40136	5.1	166.74293	70.35226	9.1	10380.52152	4383.83582	0.42195
1.82	4.83184	1.71132	0.40178	5.2	185.15852	78.10400	9.2	11480.61950	4853.91390	0.42195
1.83	4.88697	1.72537	0.40219	5.3	205.52022	86.65367	9.3	12680.13944	5360.13944	0.42195
1.84	4.94291	1.73960	0.40258	5.4	228.13624	96.02587	9.4	14125.33432	5900.13944	0.42195
1.85	4.99897	2.01427	0.40298	5.5	253.21712	106.84117	9.5	15647.40677	6602.37292	0.42195
1.86	5.05526	2.02909	0.40336	5.6	280.03023	118.15709	9.6	17333.03404	7313.61793	0.42195
1.87	5.11168	2.04417	0.40374	5.7	311.87155	131.59070	9.7	19194.73308	8101.27403	0.42195
1.88	5.17004	2.05952	0.40410	5.8	346.06903	146.02048	9.8	21266.97790	8973.53221	0.42195
1.89	5.22944	2.11513	0.40447	5.9	383.98600	162.01963	9.9	23556.20027	9939.46293	0.42195
1.90	5.28880	2.14100	0.40482	6.0	426.02496	179.75802	10.0	26091.21170	11009.10286	0.42195
1.91	5.34881	2.16715	0.40517							
1.92	5.40949	2.19357	0.40550							
1.93	5.47087	2.22025	0.40584							
1.94	5.53287	2.24725	0.40616							
1.95	5.59558	2.27451	0.40648							
1.96	5.65889	2.30205	0.40680							
1.97	5.72310	2.32988	0.40710							
1.98	5.78791	2.35801	0.40740							
1.99	5.85344	2.38643	0.40770							
2.00	5.91969	2.41514	0.40798							

TABLE 22B. Lanchester-Clifford-Schlafli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and $T_{\alpha}(x)$ for $\alpha = 5/17$ and x from 1.50 to 10.0.

x	$F_{12/17}(x)$	$H_5/17(x)$	$T_{12/17}(x)$	x	$F_{12/17}(x)$	$H_5/17(x)$	$T_{12/17}(x)$	x	$F_{12/17}(x)$	$H_5/17(x)$	$T_{12/17}(x)$
0.01	1.00000	0.0	0.0	0.50	1.09019	1.57792	1.44740	1.00	1.38093	2.72283	1.97174
0.02	1.00004	0.15064	0.15063	0.51	1.09389	1.59746	1.46218	1.01	1.38915	2.74869	1.97866
0.03	1.00012	0.26455	0.2645	0.52	1.09768	1.62098	1.47614	1.02	1.39748	2.77499	1.98547
0.04	1.00037	0.38058	0.38039	0.53	1.10155	1.64200	1.49108	1.03	1.40592	2.80167	1.99217
0.05	1.00069	0.49842	0.49808	0.54	1.10550	1.66402	1.50521	1.04	1.41446	2.82877	1.99877
0.06	1.00126	0.61877	0.61893	0.55	1.10953	1.68544	1.51944	1.05	1.42310	2.85639	2.00526
0.07	1.00207	0.74135	0.74128	0.56	1.11374	1.70709	1.53368	1.06	1.43186	2.88439	2.01169
0.08	1.00317	0.86595	0.86588	0.57	1.11811	1.72899	1.54799	1.07	1.44073	2.91272	2.01793
0.09	1.00457	0.99287	0.99288	0.58	1.12264	1.75113	1.56222	1.08	1.44979	2.94141	2.02411
0.10	1.00628	1.12211	1.12211	0.59	1.12734	1.77353	1.57646	1.09	1.45897	2.97045	2.03019
0.11	1.00830	1.25365	1.25365	0.60	1.13219	1.79618	1.59061	1.10	1.46826	3.00000	2.03618
0.12	1.01064	1.38742	1.38742	0.61	1.13719	1.81909	1.60466	1.11	1.47769	3.03000	2.04206
0.13	1.01332	1.52345	1.52345	0.62	1.14234	1.84226	1.61851	1.12	1.48726	3.06041	2.04786
0.14	1.01635	1.66178	1.66178	0.63	1.14764	1.86569	1.63226	1.13	1.49697	3.09122	2.05356
0.15	1.01974	1.80241	1.80241	0.64	1.15309	1.88936	1.64591	1.14	1.50680	3.12243	2.05916
0.16	1.02349	1.94534	1.94534	0.65	1.15869	1.91326	1.65946	1.15	1.51677	3.15395	2.06467
0.17	1.02761	2.09067	2.09067	0.66	1.16444	1.93741	1.67291	1.16	1.52685	3.18578	2.07004
0.18	1.03210	2.23840	2.23840	0.67	1.17034	1.96181	1.68626	1.17	1.53704	3.21792	2.07542
0.19	1.03696	2.38853	2.38853	0.68	1.17639	1.98646	1.69951	1.18	1.54734	3.25037	2.08067
0.20	1.04219	2.54106	2.54106	0.69	1.18259	2.01136	1.71266	1.19	1.55774	3.28312	2.08583
0.21	1.04779	2.69600	2.69600	0.70	1.18894	2.03651	1.72471	1.20	1.56826	3.31617	2.09090
0.22	1.05376	2.85335	2.85335	0.71	1.19544	2.06191	1.73671	1.21	1.57891	3.34952	2.09589
0.23	1.06010	3.01310	3.01310	0.72	1.20209	2.08756	1.74866	1.22	1.58961	3.38317	2.10072
0.24	1.06680	3.17535	3.17535	0.73	1.20889	2.11346	1.76056	1.23	1.60044	3.41702	2.10536
0.25	1.07386	3.34010	3.34010	0.74	1.21584	2.13961	1.77241	1.24	1.61139	3.45107	2.11000
0.26	1.08129	3.50735	3.50735	0.75	1.22294	2.16601	1.78421	1.25	1.62244	3.48532	2.11464
0.27	1.08909	3.67710	3.67710	0.76	1.23019	2.19266	1.79591	1.26	1.63359	3.51977	2.11928
0.28	1.09724	3.84935	3.84935	0.77	1.23759	2.21956	1.80751	1.27	1.64484	3.55442	2.12392
0.29	1.10574	4.02410	4.02410	0.78	1.24514	2.24671	1.81901	1.28	1.65619	3.58927	2.12856
0.30	1.11459	4.20135	4.20135	0.79	1.25284	2.27411	1.83041	1.29	1.66764	3.62432	2.13320
0.31	1.12379	4.38110	4.38110	0.80	1.26069	2.30176	1.84171	1.30	1.67919	3.65957	2.13784
0.32	1.13334	4.56335	4.56335	0.81	1.26869	2.32966	1.85291	1.31	1.69084	3.69502	2.14248
0.33	1.14324	4.74810	4.74810	0.82	1.27684	2.35781	1.86401	1.32	1.70259	3.73067	2.14712
0.34	1.15349	4.93535	4.93535	0.83	1.28514	2.38621	1.87501	1.33	1.71444	3.76652	2.15176
0.35	1.16409	5.12510	5.12510	0.84	1.29359	2.41486	1.88591	1.34	1.72639	3.80257	2.15640
0.36	1.17494	5.31735	5.31735	0.85	1.30219	2.44376	1.89671	1.35	1.73844	3.83882	2.16104
0.37	1.18614	5.51210	5.51210	0.86	1.31094	2.47291	1.90741	1.36	1.75059	3.87527	2.16568
0.38	1.19769	5.70935	5.70935	0.87	1.31984	2.50231	1.91791	1.37	1.76284	3.91192	2.17032
0.39	1.20959	5.90910	5.90910	0.88	1.32889	2.53196	1.92821	1.38	1.77519	3.94877	2.17496
0.40	1.22184	6.11135	6.11135	0.89	1.33809	2.56186	1.93841	1.39	1.78764	3.98582	2.17960
0.41	1.23444	6.31610	6.31610	0.90	1.34744	2.59201	1.94851	1.40	1.80019	4.02307	2.18424
0.42	1.24739	6.52335	6.52335	0.91	1.35694	2.62241	1.95851	1.41	1.81284	4.06052	2.18888
0.43	1.26069	6.73310	6.73310	0.92	1.36659	2.65306	1.96841	1.42	1.82559	4.09817	2.19352
0.44	1.27434	6.94535	6.94535	0.93	1.37639	2.68396	1.97811	1.43	1.83844	4.13592	2.19816
0.45	1.28834	7.16010	7.16010	0.94	1.38634	2.71511	1.98771	1.44	1.85139	4.17387	2.20280
0.46	1.30269	7.37735	7.37735	0.95	1.39644	2.74651	1.99721	1.45	1.86444	4.21202	2.20744
0.47	1.31739	7.59710	7.59710	0.96	1.40669	2.77816	2.00661	1.46	1.87759	4.25037	2.21208
0.48	1.33244	7.81935	7.81935	0.97	1.41709	2.81006	2.01591	1.47	1.89084	4.28892	2.21672
0.49	1.34784	8.04410	8.04410	0.98	1.42764	2.84221	2.02501	1.48	1.90419	4.32767	2.22136
0.50	1.36359	8.27135	8.27135	0.99	1.43834	2.87461	2.03401	1.49	1.91764	4.36662	2.22600
0.51	1.37959	8.50110	8.50110	1.00	1.44919	2.90726	2.04291	1.50	1.93119	4.40587	2.23064

TABLE 23A. Lanchester-Clifford-Schlafli Functions $F_\alpha(x)$, $H_{1-\alpha}(x)$, and $T_\alpha(x)$ for $\alpha = 12/17$ and x from 0.00 to 1.50.

$\alpha = 12/17$

x	$F_{12/17}(x)$	$H_{5/17}(x)$	$T_{12/17}(x)$	x	$F_{12/17}(x)$	$H_{5/17}(x)$	$T_{12/17}(x)$	x	$F_{12/17}(x)$	$H_{5/17}(x)$	$T_{12/17}(x)$
1.50	1.93771	4.28342	2.20901	2.0	2.88665	6.66133	2.30763	6.0	118.75771	281.44917	2.36996
1.51	1.95230	4.31845	2.21198	2.1	3.14048	7.28143	2.31851	6.1	130.76546	309.50742	2.36995
1.52	1.96705	4.35681	2.21490	2.2	3.47051	7.96167	2.32762	6.2	143.99679	341.82048	2.36995
1.53	1.98195	4.39550	2.21777	2.3	3.77927	8.570824	2.33510	6.3	158.57695	375.82019	2.36996
1.54	1.99701	4.43452	2.22058	2.4	4.06954	9.152794	2.34128	6.4	174.64407	413.99892	2.36996
1.55	2.01222	4.47388	2.22335	2.5	4.34441	10.42846	2.34639	6.5	192.35045	455.86264	2.36996
1.56	2.02769	4.51359	2.22607	2.6	4.60128	11.57175	2.35051	6.6	211.79706	502.07837	2.36996
1.57	2.04338	4.55364	2.22874	2.7	4.84139	12.59902	2.35368	6.7	233.47106	553.5337	2.36996
1.58	2.05925	4.59407	2.23136	2.8	5.06532	13.52903	2.35592	6.8	257.07300	609.2537	2.36996
1.59	2.07411	4.63479	2.23394	2.9	5.27332	15.01245	2.35722	6.9	283.19187	671.16858	2.36996
1.60	2.08905	4.67590	2.23647	3.0	5.46973	16.45652	2.35769	7.0	311.99324	739.41276	2.36996
1.61	2.10405	4.71737	2.23896	3.1	5.65715	17.80448	2.35722	7.1	343.73312	814.43533	2.36996
1.62	2.11932	4.75921	2.24140	3.2	5.83170	19.79090	2.35602	7.2	378.71974	897.55255	2.36997
1.63	2.13486	4.80142	2.24379	3.3	5.99402	21.71181	2.35509	7.3	417.28643	988.95440	2.36997
1.64	2.15068	4.84399	2.24615	3.4	6.14698	23.82485	2.35397	7.4	459.80081	1089.71216	2.36997
1.65	2.16676	4.88695	2.24846	3.5	6.29198	26.16948	2.35269	7.5	506.65440	1200.78687	2.36997
1.66	2.18312	4.93027	2.25073	3.6	6.42997	28.75713	2.35126	7.6	557.29528	1320.78670	2.36997
1.67	2.19977	4.97397	2.25295	3.7	6.56187	31.59113	2.34970	7.7	612.29805	1458.53820	2.36997
1.68	2.21671	5.01815	2.25511	3.8	6.68768	34.68116	2.34816	7.8	671.09805	1607.06929	2.36997
1.69	2.23395	5.06283	2.25723	3.9	6.80750	38.02620	2.34648	7.9	734.33359	1771.16132	2.36997
1.70	2.25149	5.10808	2.25931	4.0	6.92156	41.52705	2.34467	8.0	802.67418	1952.08037	2.36997
1.71	2.26933	5.15354	2.26135	4.1	7.02997	45.20547	2.34275	8.1	876.84597	2151.55767	2.36997
1.72	2.28746	5.19921	2.26332	4.2	7.13274	49.06979	2.34075	8.2	957.64800	2371.50257	2.36997
1.73	2.30589	5.24516	2.26525	4.3	7.23000	53.12524	2.33868	8.3	1045.97798	2614.02128	2.36997
1.74	2.32462	5.29143	2.26714	4.4	7.32175	57.37756	2.33652	8.4	1152.57329	2881.43727	2.36997
1.75	2.34365	5.33815	2.26901	4.5	7.40798	61.92948	2.33429	8.5	1278.34543	3176.31367	2.36997
1.76	2.36297	5.38523	2.27086	4.6	7.48869	66.78993	2.33199	8.6	1422.73167	3500.96979	2.36997
1.77	2.38257	5.43276	2.27269	4.7	7.56392	71.96493	2.32962	8.7	1586.24670	3855.47013	2.36997
1.78	2.40245	5.48070	2.27452	4.8	7.63367	77.46428	2.32718	8.8	1769.57841	4255.47013	2.36997
1.79	2.42261	5.52913	2.27635	4.9	7.69793	83.29893	2.32467	8.9	1973.57841	4691.53557	2.36997
1.80	2.44304	5.57805	2.27818	5.0	7.75669	89.48493	2.32209	9.0	2182.49218	5172.43456	2.36997
1.81	2.46374	5.62746	2.27999	5.1	7.81000	96.03993	2.31945	9.1	2406.27310	5702.78798	2.36997
1.82	2.48470	5.67736	2.28179	5.2	7.85885	102.98220	2.31675	9.2	2653.07228	6287.69393	2.36997
1.83	2.50593	5.72776	2.28358	5.3	7.90322	110.33358	2.31400	9.3	2923.26302	6932.77704	2.36997
1.84	2.52745	5.77667	2.28535	5.4	7.94311	118.10993	2.31120	9.4	3225.46318	7644.24288	2.36997
1.85	2.54926	5.82608	2.28712	5.5	7.97855	126.33775	2.30835	9.5	3556.56354	8428.93854	2.36997
1.86	2.57137	5.87600	2.28889	5.6	8.00955	135.02336	2.30545	9.6	3920.76378	9354.71752	2.36997
1.87	2.59378	5.92643	2.29066	5.7	8.03617	144.17411	2.30250	9.7	4324.53641	10369.01609	2.36997
1.88	2.61649	5.97736	2.29242	5.8	8.05843	153.80358	2.30000	9.8	4768.85148	11501.82943	2.36997
1.89	2.63950	6.02889	2.29419	5.9	8.07633	163.93775	2.29744	9.9	5258.85148	12863.30496	2.36997
1.90	2.66291	6.08100	2.29596	6.0	8.09000	174.68236	2.29482	10.0	5799.37957	13744.33875	2.36997
1.91	2.68672	6.13375	2.29773								
1.92	2.71093	6.18716	2.29950								
1.93	2.73554	6.24123	2.30127								
1.94	2.76055	6.29596	2.30304								
1.95	2.78596	6.35133	2.30481								
1.96	2.81177	6.40736	2.30658								
1.97	2.83798	6.46405	2.30835								
1.98	2.86459	6.52140	2.31012								
1.99	2.89160	6.57943	2.31189								
2.00	2.91901	6.63816	2.31366								

TABLE 23B. Lanchester-Clifford-Schlafli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and $T_{\alpha}(x)$ for $\alpha = 12/17$ and x from 1.50 to 10.0.

x	$F_{5/21}(x)$	$H_{16/21}(x)$	$T_{5/21}(x)$	x	$F_{5/21}(x)$	$H_{16/21}(x)$	$T_{5/21}(x)$	x	$F_{5/21}(x)$	$H_{16/21}(x)$	$T_{5/21}(x)$
0.0	1.00000	0.00041	0.00041	0.50	1.26919	0.16443	0.12561	1.00	2.16003	0.52421	0.24268
0.01	1.00011	0.00041	0.00041	0.51	1.26925	0.16443	0.12561	1.01	2.16003	0.52421	0.24268
0.02	1.00023	0.00041	0.00041	0.52	1.26931	0.16443	0.12561	1.02	2.16003	0.52421	0.24268
0.03	1.00035	0.00041	0.00041	0.53	1.26937	0.16443	0.12561	1.03	2.16003	0.52421	0.24268
0.04	1.00047	0.00041	0.00041	0.54	1.26943	0.16443	0.12561	1.04	2.16003	0.52421	0.24268
0.05	1.00059	0.00041	0.00041	0.55	1.26949	0.16443	0.12561	1.05	2.16003	0.52421	0.24268
0.06	1.00071	0.00041	0.00041	0.56	1.26955	0.16443	0.12561	1.06	2.16003	0.52421	0.24268
0.07	1.00083	0.00041	0.00041	0.57	1.26961	0.16443	0.12561	1.07	2.16003	0.52421	0.24268
0.08	1.00095	0.00041	0.00041	0.58	1.26967	0.16443	0.12561	1.08	2.16003	0.52421	0.24268
0.09	1.00107	0.00041	0.00041	0.59	1.26973	0.16443	0.12561	1.09	2.16003	0.52421	0.24268
0.10	1.00119	0.00041	0.00041	0.60	1.26979	0.16443	0.12561	1.10	2.16003	0.52421	0.24268
0.11	1.00131	0.00041	0.00041	0.61	1.26985	0.16443	0.12561	1.11	2.16003	0.52421	0.24268
0.12	1.00143	0.00041	0.00041	0.62	1.26991	0.16443	0.12561	1.12	2.16003	0.52421	0.24268
0.13	1.00155	0.00041	0.00041	0.63	1.26997	0.16443	0.12561	1.13	2.16003	0.52421	0.24268
0.14	1.00167	0.00041	0.00041	0.64	1.27003	0.16443	0.12561	1.14	2.16003	0.52421	0.24268
0.15	1.00179	0.00041	0.00041	0.65	1.27009	0.16443	0.12561	1.15	2.16003	0.52421	0.24268
0.16	1.00191	0.00041	0.00041	0.66	1.27015	0.16443	0.12561	1.16	2.16003	0.52421	0.24268
0.17	1.00203	0.00041	0.00041	0.67	1.27021	0.16443	0.12561	1.17	2.16003	0.52421	0.24268
0.18	1.00215	0.00041	0.00041	0.68	1.27027	0.16443	0.12561	1.18	2.16003	0.52421	0.24268
0.19	1.00227	0.00041	0.00041	0.69	1.27033	0.16443	0.12561	1.19	2.16003	0.52421	0.24268
0.20	1.00239	0.00041	0.00041	0.70	1.27039	0.16443	0.12561	1.20	2.16003	0.52421	0.24268
0.21	1.00251	0.00041	0.00041	0.71	1.27045	0.16443	0.12561	1.21	2.16003	0.52421	0.24268
0.22	1.00263	0.00041	0.00041	0.72	1.27051	0.16443	0.12561	1.22	2.16003	0.52421	0.24268
0.23	1.00275	0.00041	0.00041	0.73	1.27057	0.16443	0.12561	1.23	2.16003	0.52421	0.24268
0.24	1.00287	0.00041	0.00041	0.74	1.27063	0.16443	0.12561	1.24	2.16003	0.52421	0.24268
0.25	1.00299	0.00041	0.00041	0.75	1.27069	0.16443	0.12561	1.25	2.16003	0.52421	0.24268
0.26	1.00311	0.00041	0.00041	0.76	1.27075	0.16443	0.12561	1.26	2.16003	0.52421	0.24268
0.27	1.00323	0.00041	0.00041	0.77	1.27081	0.16443	0.12561	1.27	2.16003	0.52421	0.24268
0.28	1.00335	0.00041	0.00041	0.78	1.27087	0.16443	0.12561	1.28	2.16003	0.52421	0.24268
0.29	1.00347	0.00041	0.00041	0.79	1.27093	0.16443	0.12561	1.29	2.16003	0.52421	0.24268
0.30	1.00359	0.00041	0.00041	0.80	1.27099	0.16443	0.12561	1.30	2.16003	0.52421	0.24268
0.31	1.00371	0.00041	0.00041	0.81	1.27105	0.16443	0.12561	1.31	2.16003	0.52421	0.24268
0.32	1.00383	0.00041	0.00041	0.82	1.27111	0.16443	0.12561	1.32	2.16003	0.52421	0.24268
0.33	1.00395	0.00041	0.00041	0.83	1.27117	0.16443	0.12561	1.33	2.16003	0.52421	0.24268
0.34	1.00407	0.00041	0.00041	0.84	1.27123	0.16443	0.12561	1.34	2.16003	0.52421	0.24268
0.35	1.00419	0.00041	0.00041	0.85	1.27129	0.16443	0.12561	1.35	2.16003	0.52421	0.24268
0.36	1.00431	0.00041	0.00041	0.86	1.27135	0.16443	0.12561	1.36	2.16003	0.52421	0.24268
0.37	1.00443	0.00041	0.00041	0.87	1.27141	0.16443	0.12561	1.37	2.16003	0.52421	0.24268
0.38	1.00455	0.00041	0.00041	0.88	1.27147	0.16443	0.12561	1.38	2.16003	0.52421	0.24268
0.39	1.00467	0.00041	0.00041	0.89	1.27153	0.16443	0.12561	1.39	2.16003	0.52421	0.24268
0.40	1.00479	0.00041	0.00041	0.90	1.27159	0.16443	0.12561	1.40	2.16003	0.52421	0.24268
0.41	1.00491	0.00041	0.00041	0.91	1.27165	0.16443	0.12561	1.41	2.16003	0.52421	0.24268
0.42	1.00503	0.00041	0.00041	0.92	1.27171	0.16443	0.12561	1.42	2.16003	0.52421	0.24268
0.43	1.00515	0.00041	0.00041	0.93	1.27177	0.16443	0.12561	1.43	2.16003	0.52421	0.24268
0.44	1.00527	0.00041	0.00041	0.94	1.27183	0.16443	0.12561	1.44	2.16003	0.52421	0.24268
0.45	1.00539	0.00041	0.00041	0.95	1.27189	0.16443	0.12561	1.45	2.16003	0.52421	0.24268
0.46	1.00551	0.00041	0.00041	0.96	1.27195	0.16443	0.12561	1.46	2.16003	0.52421	0.24268
0.47	1.00563	0.00041	0.00041	0.97	1.27201	0.16443	0.12561	1.47	2.16003	0.52421	0.24268
0.48	1.00575	0.00041	0.00041	0.98	1.27207	0.16443	0.12561	1.48	2.16003	0.52421	0.24268
0.49	1.00587	0.00041	0.00041	0.99	1.27213	0.16443	0.12561	1.49	2.16003	0.52421	0.24268
0.50	1.00599	0.00041	0.00041	1.00	1.27219	0.16443	0.12561	1.50	2.16003	0.52421	0.24268

TABLE 24A. Lanchester-Clifford-Schlafli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and $T_{\alpha}(x)$ for $\alpha = 5/21$ and x from 0.00 to 1.50.

$F_{5/21}(x)$	$H_{16/21}(x)$	$T_{16/21}(x)$	$F_{16/21}(x)$	$H_{16/21}(x)$	$T_{16/21}(x)$	$F_{16/21}(x)$	$H_{16/21}(x)$
1.50	1.14594	0.29039	2.0	7.16323	0.30755	6.0	561.99606
1.51	1.16204	0.29094	2.1	8.06109	0.30930	6.1	624.14143
1.52	1.17834	0.29147	2.2	9.05116	0.31073	6.2	693.09613
1.53	1.19480	0.29200	2.3	10.16895	0.31189	6.3	769.48014
1.54	1.21145	0.29251	2.4	11.40929	0.31283	6.4	854.48092
1.55	1.22827	0.29301	2.5	12.79443	0.31359	6.5	948.40338
1.56	1.24528	0.29351	2.6	14.33222	0.31421	6.6	1051.47398
1.57	1.26246	0.29399	2.7	16.03250	0.31471	6.7	1164.72330
1.58	1.27983	0.29446	2.8	17.90681	0.31512	6.8	1288.26300
1.59	1.29738	0.29493	2.9	20.05671	0.31546	6.9	1432.05512
1.60	1.31513	0.29538	3.0	22.47120	0.31573	7.0	1598.16435
1.61	1.33306	0.29582	3.1	25.13244	0.31595	7.1	1787.51585
1.62	1.35118	0.29626	3.2	28.05377	0.31613	7.2	1999.98111
1.63	1.36950	0.29668	3.3	31.32590	0.31628	7.3	2183.63403
1.64	1.38801	0.29710	3.4	35.06638	0.31640	7.4	2422.77215
1.65	1.40673	0.29751	3.5	39.31052	0.31650	7.5	2687.94332
1.66	1.42564	0.29791	3.6	44.12012	0.31658	7.6	2981.96486
1.67	1.44476	0.29830	3.7	49.53677	0.31664	7.7	3307.97487
1.68	1.46408	0.29869	3.8	55.60547	0.31669	7.8	3669.42519
1.69	1.48360	0.29906	3.9	62.37220	0.31674	7.9	4070.16016
1.70	1.50334	0.29943	4.0	69.88322	0.31677	8.0	4514.43019
1.71	1.52329	0.29979	4.1	78.18235	0.31680	8.1	5006.94950
1.72	1.54345	0.30014	4.2	87.32307	0.31683	8.2	5552.93656
1.73	1.56383	0.30049	4.3	97.37358	0.31686	8.3	6158.17538
1.74	1.58442	0.30083	4.4	108.47258	0.31686	8.4	6829.47318
1.75	1.60524	0.30116	4.5	120.66327	0.31687	8.5	7572.72810
1.76	1.62628	0.30148	4.6	134.08521	0.31688	8.6	8397.00319
1.77	1.64755	0.30180	4.7	148.78740	0.31689	8.7	9310.41019
1.78	1.66907	0.30211	4.8	164.80540	0.31690	8.8	10323.21814
1.79	1.69077	0.30242	4.9	178.02886	0.31690	8.9	11445.45635
1.80	1.71272	0.30272	5.0	195.74306	0.31691	9.0	12689.22565
1.81	1.73492	0.30301	5.1	214.63820	0.31691	9.1	14067.62200
1.82	1.75735	0.30330	5.2	234.94470	0.31692	9.2	15595.17360
1.83	1.78002	0.30358	5.3	258.89406	0.31692	9.3	17287.92688
1.84	1.80293	0.30385	5.4	288.54066	0.31692	9.4	19163.84334
1.85	1.82609	0.30412	5.5	322.15314	0.31692	9.5	21242.52887
1.86	1.84950	0.30438	5.6	360.07059	0.31692	9.6	23545.69946
1.87	1.87316	0.30464	5.7	402.95299	0.31693	9.7	26098.15915
1.88	1.89709	0.30490	5.8	450.57299	0.31693	9.8	28926.56811
1.89	1.92125	0.30514	5.9	503.95991	0.31693	9.9	32059.14881
1.90	1.94568	0.30539	6.0	561.99606	0.31693	10.0	35531.32147
1.91	1.97037	0.30562					
1.92	1.99533	0.30585					
1.93	2.02056	0.30608					
1.94	2.04605	0.30631					
1.95	2.07182	0.30652					
1.96	2.09787	0.30674					
1.97	2.12420	0.30695					
1.98	2.15091	0.30715					
1.99	2.17791	0.30735					
2.00	2.20489	0.30755					

TABLE 24B. Lanchester-Clifford-Schlafli Functions $F_{\alpha}(x)$, $H_{1-\alpha}(x)$, and

$T_{\alpha}(x)$ for $\alpha = 5/21$ and x from 1.50 to 10.0.

x	$F_{16/21}(x)$	$H_{5/21}(x)$	$T_{16/21}(x)$	x	$F_{16/21}(x)$	$H_{5/21}(x)$	$T_{16/21}(x)$	x	$F_{16/21}(x)$	$H_{5/21}(x)$	$T_{16/21}(x)$
0.0	1.00000	0.0	0.0	0.50	1.08350	2.28156	2.1575	1.00	1.35212	3.65337	2.70972
0.01	1.00003	0.00002	0.00001	0.51	1.08693	2.30797	2.1522	1.01	1.35738	3.72309	2.71552
0.02	1.00013	0.00010	0.00005	0.52	1.09042	2.33519	2.1473	1.02	1.36270	3.79297	2.72137
0.03	1.00053	0.00052	0.00026	0.53	1.09398	2.36224	2.1426	1.03	1.36804	3.86296	2.72720
0.04	1.00118	0.00118	0.00059	0.54	1.09768	2.38924	2.1380	1.04	1.37339	3.93297	2.73307
0.05	1.00202	0.00224	0.00128	0.55	1.10151	2.41624	2.1335	1.05	1.37876	4.00299	2.73891
0.06	1.00307	0.00351	0.00223	0.56	1.10541	2.44324	2.1291	1.06	1.38414	4.07299	2.74477
0.07	1.00436	0.00500	0.00351	0.57	1.10939	2.47024	2.1248	1.07	1.38953	4.14299	2.75066
0.08	1.00591	0.00688	0.00518	0.58	1.11344	2.49724	2.1206	1.08	1.39493	4.21299	2.75657
0.09	1.00766	0.00908	0.00724	0.59	1.11757	2.52424	2.1165	1.09	1.40034	4.28299	2.76250
0.10	1.00966	0.01162	0.00982	0.60	1.12177	2.55124	2.1125	1.10	1.40576	4.35299	2.76845
0.11	1.01194	0.01452	0.01291	0.61	1.12604	2.57824	2.1086	1.11	1.41119	4.42299	2.77441
0.12	1.01442	0.01788	0.01654	0.62	1.13038	2.60524	2.1048	1.12	1.41663	4.49299	2.78038
0.13	1.01712	0.02172	0.02076	0.63	1.13478	2.63224	2.1011	1.13	1.42208	4.56299	2.78637
0.14	1.02006	0.02606	0.02551	0.64	1.13924	2.65924	2.0975	1.14	1.42754	4.63299	2.79237
0.15	1.02326	0.03092	0.03026	0.65	1.14376	2.68624	2.0940	1.15	1.43301	4.70299	2.79838
0.16	1.02674	0.03632	0.03576	0.66	1.14834	2.71324	2.0906	1.16	1.43848	4.77299	2.80441
0.17	1.03052	0.04228	0.04182	0.67	1.15298	2.74024	2.0873	1.17	1.44396	4.84299	2.81046
0.18	1.03462	0.04882	0.04836	0.68	1.15768	2.76724	2.0841	1.18	1.44945	4.91299	2.81652
0.19	1.03906	0.05596	0.05551	0.69	1.16244	2.79424	2.0810	1.19	1.45495	4.98299	2.82259
0.20	1.04386	0.06372	0.06326	0.70	1.16726	2.82124	2.0780	1.20	1.46046	5.05299	2.82867
0.21	1.04902	0.07212	0.07166	0.71	1.17214	2.84824	2.0751	1.21	1.46598	5.12299	2.83476
0.22	1.05454	0.08118	0.08072	0.72	1.17708	2.87524	2.0723	1.22	1.47151	5.19299	2.84086
0.23	1.06044	0.09092	0.09046	0.73	1.18208	2.90224	2.0696	1.23	1.47706	5.26299	2.84697
0.24	1.06672	0.10136	0.10090	0.74	1.18724	2.92924	2.0670	1.24	1.48262	5.33299	2.85309
0.25	1.07340	0.11252	0.11206	0.75	1.19246	2.95624	2.0645	1.25	1.48819	5.40299	2.85922
0.26	1.08048	0.12442	0.12396	0.76	1.19774	2.98324	2.0621	1.26	1.49378	5.47299	2.86537
0.27	1.08796	0.13708	0.13662	0.77	1.20308	3.01024	2.0598	1.27	1.49938	5.54299	2.87152
0.28	1.09584	0.15052	0.15006	0.78	1.20848	3.03724	2.0576	1.28	1.50499	5.61299	2.87768
0.29	1.07776	1.70313	1.65713	0.79	1.21402	3.06424	2.0555	1.29	1.51061	5.68299	2.88384
0.30	1.0972	1.73200	1.68288	0.80	1.21962	3.09124	2.0535	1.30	1.51625	5.75299	2.88999
0.31	1.0972	1.76235	1.71226	0.81	1.22528	3.11824	2.0516	1.31	1.52191	5.82299	2.89614
0.32	1.0972	1.79270	1.74261	0.82	1.23098	3.14524	2.0498	1.32	1.52758	5.89299	2.90230
0.33	1.0972	1.82305	1.77296	0.83	1.23672	3.17224	2.0481	1.33	1.53326	5.96299	2.90846
0.34	1.0972	1.85340	1.80331	0.84	1.24248	3.19924	2.0465	1.34	1.53895	6.03299	2.91462
0.35	1.0972	1.88375	1.83366	0.85	1.24824	3.22624	2.0450	1.35	1.54465	6.10299	2.92078
0.36	1.0972	1.91410	1.86401	0.86	1.25400	3.25324	2.0436	1.36	1.55036	6.17299	2.92694
0.37	1.0972	1.94445	1.89436	0.87	1.25976	3.28024	2.0423	1.37	1.55608	6.24299	2.93310
0.38	1.0972	1.97480	1.92471	0.88	1.26552	3.30724	2.0411	1.38	1.56180	6.31299	2.93926
0.39	1.0972	2.00515	1.95506	0.89	1.27128	3.33424	2.0400	1.39	1.56753	6.38299	2.94542
0.40	1.0972	2.03550	1.98541	0.90	1.27704	3.36124	2.0390	1.40	1.57327	6.45299	2.95158
0.41	1.0972	2.06585	2.01576	0.91	1.28280	3.38824	2.0381	1.41	1.57902	6.52299	2.95774
0.42	1.0972	2.09620	2.04611	0.92	1.28856	3.41524	2.0373	1.42	1.58478	6.59299	2.96390
0.43	1.0972	2.12655	2.07646	0.93	1.29432	3.44224	2.0366	1.43	1.59055	6.66299	2.97006
0.44	1.0972	2.15690	2.10681	0.94	1.30008	3.46924	2.0360	1.44	1.59633	6.73299	2.97622
0.45	1.0972	2.18725	2.13716	0.95	1.31584	3.49624	2.0355	1.45	1.60212	6.80299	2.98238
0.46	1.0972	2.21760	2.16751	0.96	1.32160	3.52324	2.0351	1.46	1.60792	6.87299	2.98854
0.47	1.0972	2.24795	2.19786	0.97	1.32736	3.55024	2.0348	1.47	1.61373	6.94299	2.99470
0.48	1.0972	2.27830	2.22821	0.98	1.33312	3.57724	2.0346	1.48	1.61955	7.01299	3.00086
0.49	1.0972	2.30865	2.25856	0.99	1.33888	3.60424	2.0345	1.49	1.62538	7.08299	3.00702
0.50	1.0972	2.33900	2.28891	1.00	1.34464	3.63124	2.0345	1.50	1.63122	7.15299	3.01318

TABLE 25A. Lanchester-Clifford-Schlafli Functions $F_\alpha(x)$, $H_{1-\alpha}(x)$, and $T_\alpha(x)$ for $\alpha = 16/21$ and x from 0.00 to 1.50.

$\alpha = 16/21$

x	$F_{16/21}(x)$	$H_{5/21}(x)$	$T_{16/21}(x)$	x	$F_{16/21}(x)$	$H_{5/21}(x)$	$T_{16/21}(x)$	x	$F_{16/21}(x)$	$H_{5/21}(x)$	$T_{16/21}(x)$
1.50	1.86444	5.54780	2.97559	2.0	2.73304	8.43296	3.08557	6.0	1.0511717	331.67003	3.15324
1.51	1.87783	5.53388	2.97820	2.1	2.66463	9.18315	3.09777	6.1	1.1562376	364.84917	3.15325
1.52	1.89137	5.54035	2.98216	2.2	3.511983	10.00633	3.10777	6.2	1.2101079	401.38180	3.15325
1.53	1.90504	5.54872	2.98536	2.3	3.50087	10.90952	3.11623	6.3	1.3995925	441.60680	3.15325
1.54	1.91886	5.573452	2.98850	2.4	3.501023	11.89985	3.12313	6.4	1.5399713	485.90024	3.15326
1.55	1.93283	5.78222	2.99159	2.5	4.15063	12.98661	3.12883	6.5	1.6945557	536.6793	3.15326
1.56	1.94694	5.83033	2.99462	2.6	4.32509	14.17895	3.13326	6.6	1.8947673	599.3829	3.15326
1.57	1.96119	5.87987	2.99760	2.7	4.51897	15.47895	3.13732	6.7	2.0527110	647.56432	3.15326
1.58	1.97560	5.93763	3.00052	2.8	5.38977	16.92700	3.14130	6.8	2.281507	712.69432	3.15326
1.59	1.99016	5.97722	3.00339	2.9	5.88768	18.50014	3.14530	6.9	2.461659	784.45058	3.15326
1.60	2.00486	6.02705	3.00622	3.0	6.43507	20.24059	3.14936	7.0	2.7366498	865.48502	3.15326
1.61	2.01972	6.07731	3.00899	3.1	7.03687	22.14584	3.15343	7.1	3.0125537	950.54017	3.15326
1.62	2.03473	6.12802	3.01171	3.2	7.69036	24.23896	3.15749	7.2	3.3166998	1046.43388	3.15326
1.63	2.04990	6.17917	3.01439	3.3	8.42557	26.53813	3.16159	7.3	3.6513552	1152.06769	3.15326
1.64	2.06522	6.23078	3.01701	3.4	9.22499	29.06581	3.16571	7.4	4.0200581	1268.43341	3.15327
1.65	2.08070	6.28285	3.01959	3.5	10.10381	31.84294	3.16988	7.5	4.4263554	1396.63260	3.15327
1.66	2.09634	6.33538	3.02212	3.6	11.06975	34.85000	3.17403	7.6	4.8737071	1537.86201	3.15327
1.67	2.11214	6.38837	3.02460	3.7	12.12397	38.05000	3.17818	7.7	5.3671235	1693.47011	3.15327
1.68	2.12809	6.44184	3.02704	3.8	13.26997	41.53784	3.18233	7.8	5.9106679	1864.90940	3.15327
1.69	2.14422	6.49578	3.02944	3.9	14.50400	45.59225	3.18648	7.9	6.5091321	2053.80437	3.15327
1.70	2.16050	6.55012	3.03180	4.0	15.99589	50.44942	3.19063	8.0	7.1687709	2261.93803	3.15327
1.71	2.17696	6.60512	3.03411	4.1	17.54848	55.35044	3.19478	8.1	7.8958187	2491.27791	3.15327
1.72	2.19358	6.66052	3.03638	4.2	19.25588	60.73911	3.19893	8.2	8.6953491	2743.99286	3.15327
1.73	2.21036	6.71642	3.03861	4.3	21.13364	66.66633	3.20308	8.3	9.5719412	3022.47222	3.15327
1.74	2.22732	6.77283	3.04079	4.4	23.19890	73.18439	3.20723	8.4	10.551512	3329.55865	3.15327
1.75	2.24445	6.82974	3.04294	4.5	25.47054	80.53344	3.21138	8.5	11.623930	3667.5533	3.15327
1.76	2.26175	6.88716	3.04505	4.6	27.95119	88.51332	3.21553	8.6	12.804263	4047.2635	3.15327
1.77	2.27923	6.94509	3.04712	4.7	30.63739	97.21322	3.21968	8.7	14.1006536	4451.02519	3.15327
1.78	2.29688	7.00355	3.04916	4.8	33.52231	106.65597	3.22383	8.8	15.5412778	4903.73471	3.15327
1.79	2.31471	7.06255	3.05115	4.9	37.09950	116.95597	3.22798	8.9	17.1121770	5402.69045	3.15327
1.80	2.33272	7.12206	3.05311	5.0	40.73034	128.50745	3.23213	9.0	18.8657019	5952.63186	3.15327
1.81	2.35091	7.18212	3.05504	5.1	44.75855	141.20180	3.23628	9.1	20.7806786	6558.78322	3.15327
1.82	2.36928	7.24272	3.05693	5.2	49.19129	155.20544	3.24043	9.2	22.9045904	7226.91225	3.15327
1.83	2.38784	7.30387	3.05878	5.3	54.06945	170.59777	3.24458	9.3	25.2383568	7963.7145	3.15327
1.84	2.40658	7.36558	3.06060	5.4	59.43814	187.53814	3.24873	9.4	27.8112001	8775.17510	3.15327
1.85	2.42551	7.42784	3.06239	5.5	65.34702	206.18276	3.25288	9.5	30.6473183	9670.04603	3.15327
1.86	2.44462	7.49068	3.06414	5.6	71.80981	226.29339	3.25703	9.6	33.7732280	10656.51197	3.15327
1.87	2.46393	7.55408	3.06587	5.7	78.90882	249.29339	3.26118	9.7	37.220284	11743.97446	3.15327
1.88	2.48343	7.61806	3.06756	5.8	86.69050	274.15939	3.26533	9.8	41.029678	12942.80217	3.15327
1.89	2.50312	7.68262	3.06922	5.9	95.56606	301.53331	3.26948	9.9	45.2083209	14264.40363	3.15327
1.90	2.52300	7.74777	3.07084	6.0	105.11177	331.67003	3.27363	10.0	49.8261287	15721.47212	3.15327
1.91	2.54310	7.81352	3.07244								
1.92	2.56338	7.87986	3.07401								
1.93	2.58387	7.94682	3.07555								
1.94	2.60455	8.01438	3.07706								
1.95	2.62545	8.08256	3.07855								
1.96	2.64654	8.15137	3.08000								
1.97	2.66785	8.22081	3.08143								
1.98	2.68937	8.29088	3.08284								
1.99	2.71109	8.36160	3.08421								
2.00	2.73304	8.43296	3.08557								

TABLE 25B. Lanchester-Clifford-Schlafli Functions $F_\alpha(x)$, $H_{1-\alpha}(x)$, and

$T_\alpha(x)$ for $\alpha = 16/21$ and x from 1.50 to 10.0.

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